

**WHITE HOUSE ENVIRONMENTAL JUSTICE
ADVISORY COUNCIL**

NOVEMBER 2021 MEETING SUMMARY

**VIRTUAL PUBLIC MEETING
November 17-18, 2021**

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PREFACE

The White House Environmental Justice Advisory Council is established by Executive Order 14008, titled “Tackling the Climate Crisis at Home and Abroad” (issued on January 27, 2021). As such, this is a non-discretionary committee and operates under the provisions of the Federal Advisory Committee Act (FACA), 5 U.S.C. App. 2.

The WHEJAC will provide independent advice and recommendations to the Chair of the Council on Environmental Quality (CEQ) and to the White House Interagency Council on Environmental Justice (Interagency Council), on how to increase the Federal Government’s efforts to address current and historic environmental injustice, including recommendations for updating Executive Order 12898. The WHEJAC will provide advice and recommendations about broad cross-cutting issues related, but not limited to, issues of environmental justice and pollution reduction, energy, climate change mitigation and resiliency, environmental health and racial inequity. The WHEJAC’s efforts will include a broad range of strategic scientific, technological, regulatory, community engagement, and economic issues related to environmental justice.

The duties of the WHEJAC are to provide advice and recommendations to the Interagency Council and the Chair of CEQ on a whole-of-government approach to environmental justice, including but not limited to environmental justice in the following areas:

- Climate change mitigation, resilience, and disaster management.
- Toxics, pesticides, and pollution reduction in overburdened communities.
- Equitable conservation and public lands use.
- Tribal and Indigenous issues.
- Clean energy transition.
- Sustainable infrastructure, including clean water, transportation, and the built environment.
- National Environmental Policy Act (NEPA) enforcement and civil rights.
- Increasing the Federal Government’s efforts to address current and historic environmental injustice.

EPA’s Office of Environmental Justice (OEJ) maintains summary reports of all WHEJAC meetings, which are available on the WHEJAC website at:

<https://www.epa.gov/environmentaljustice/white-house-environmental-justice-advisory-council>.

Copies of materials distributed during WHEJAC meetings are also available to the public upon request. Comments or questions can be directed via e-mail to whejac@epa.gov

Committee Members in Attendance

- Richard Moore, Co-Chair, Los Jardines Institute
- Peggy Shepard, Co-Chair, WE ACT for Environmental Justice
- Carletta Tilousi, Vice-Chair, Havusapai Tribal Council
- Catherine Coleman Flowers, Vice-Chair, Center for Rural Enterprise and Environmental Justice
- Angelo Logan, Moving Forward Network
- Rachel Morello-Frosch, PhD, UC Berkley

- Viola Waghiyi, Alaska Community Action on Toxins
- Miya Yoshitani, Asian Pacific Environmental Network
- Jade Begay, NDN Collective
- Kim Havey, City of Minneapolis
- Kyle Whyte, PhD, University of Michigan
- Tom Cormons, Appalachian Voices
- LaTricea Adams, Black Millennials for Flint
- Harold Mitchell, ReGenesis
- Beverly Wright, PhD, Deep South Center for Environmental Justice
- Susana Almanza, People Organized in Defense of Earth and Her Resources
- Robert Bullard, PhD, Texas Southern University
- Juan Parras, Texas Environmental Justice Advocacy Services
- Maria Belen-Power, GreenRoots
- Andrea Delgado, United Farm Workers Foundation
- Maria Lopez-Nunez, Ironbound Community Corporation
- Michele Roberts, Environmental Justice and Health Alliance for Chemical Policy Reform
- Nicky Sheats, PhD, Kean University
- Ruth Santiago, Latino Climate Action Network

WHITE HOUSE ENVIRONMENTAL JUSTICE ADVISORY COUNCIL (WHEJAC)
Virtual Public Meeting
November 17-18, 2021

MEETING SUMMARY

The White House Environmental Justice Advisory Council (WHEJAC) convened via Zoom meeting on Wednesday, November 17, 2021, and Thursday, November 18, 2021. This synopsis covers WHEJAC members' deliberations during the two-day meeting. It also summarizes the issues raised during the public comment period.

1.0 WHEJAC MEETING

This section summarizes WHEJAC members' deliberations during the two-day meeting, including action items, requests, and recommendations.

1.1 Welcome & Introductions & Opening Remarks

Karen Martin, the Designated Federal Officer (DFO), U.S. EPA, welcomed attendees and gave a few announcements before getting started. Since it is a virtual meeting, everyone is in listen and view mode only, and the Q&A feature or the Raise Your Hand feature will be turned off. Public commenters are invited to speak later that afternoon. Spanish translation and closed captioning are available. The announcements were then read in Spanish. She then turned the meeting over to Mr. Richard Moore, the WHEJAC chair, for the opening remarks.

Richard Moore also welcomed everyone to the meeting. He highlighted the fact that, in October, the 30th anniversary of the first People of Color Summit held back in 1991 in Washington, D.C. was celebrated. Some of those that were seen in the videos at the first People of Color Summit are no longer with us physically, but they're here with us spiritually.

He reminded everyone of the incredible amount of time as volunteers that the members are on the WHEJAC council. He also stated that there are over 100 people that have signed up to make a public comment, so everyone needs to keep in mind that they will need to keep as close to the agenda as possible so they can hear as many as possible during that time period. He acknowledged the WHEJAC is the people's advisory council, and it was brought about and made possible by many of their sisters and brothers that have given up their time and given up their lives.

He articulated that this is a historic moment with the White House Council. They've always asked that environmental and economic justice be looked at and viewed at the highest levels of government, so the Biden/Harris Administration has done that in many areas. He then turned the meeting over to Ms. Peggy Shepard, a WHEJAC Co-Chair.

Peggy Shepard reiterated that there is a very high interest in climate change and environmental justice policy in anticipation of Justice40 implementation and understanding the complexity of how to truly integrate equity and justice into all government policies and practices. She then turned to Ms. Catherine Coleman Flowers, a WHEJAC vice-chair.

Catherine Coleman Flowers, a WHEJAC Vice-Chair, stated that it's an opportunity for them to work on solutions as it relates to environmental justice and climate change, and she's looking forward to coming out with some real solutions.

DFO Martin invited the Council members to briefly introduce themselves and state their affiliations. Afterward, she informed the Council that quorum was met.

Chair Moore invited Brenda Mallory to give her opening remarks.

1.1.1 Brenda Mallory, Chair – The Council on Environmental Quality (CEQ)

Brenda Mallory thanked everyone for having her. She stated that it had been an exciting week in the White House. On Monday, President Biden signed the bipartisan infrastructure deal into law. This law will be transformative for environmental justice communities across this country. It will strengthen their resilience to extreme weather and climate change, clean up toxic pollution, expand access to clean drinking water, remediate legacy pollution, deliver electric school busses to support clean air, and so much more. When coupled with the Build Back Better framework, these once-in-a-generation bills represent the single largest investment in environmental justice in our nation's history.

She said, as proud and as excited as they are about these investments, they are just one of the four cornerstones of President Biden's environmental justice agenda and important to secure the investments, but some things have to be done. One, they have to be invested in the right way and the right places. Two, they have to reshape government agencies and institutions to incorporate environmental justice priorities and perspectives in their decision-making. And three, they have to make meaningful and on-the-ground progress in alleviating environmental burdens in environmental justice communities.

She explained each one briefly. First, President Biden's Justice40 initiative is their commitment to fundamentally transforming how the government programs work so that at least 40 percent of their benefits are reaching disadvantaged communities. In other words, they want to make sure that the investments that are coming through existing climate, clean energy, transportation, housing, and other programs along with investments from the bipartisan infrastructure law and the Build Back Better act are actually reaching communities that are overburdened by pollution and subject to historic underinvestment.

She added that in July, they published the Justice40 interim implementation guidance which relied heavily on recommendations provided by the WHEJAC. That guidance directed agencies to begin reorienting all eligible climate, clean energy, affordable and sustainable housing, clean water, and other programs to deliver at least 40 percent of their benefits to disadvantaged communities.

In September, agencies developed their full list of programs that are part of the Justice40 initiative, again, hundreds of programs at the moment. By December, all agencies will submit a methodology for calculating and tracking the benefits of these programs to disadvantaged

communities. They've also identified a set of pilot programs for Justice40 that are at the leading edge of the change that needs to happen. Agencies are gathering input from environmental justice communities and the public on how to orient these federal programs to benefit disadvantaged communities and to ensure there is accountability every step of the way.

She continued that she was also pleased to report that in the next few weeks they at CEQ will also publish a beta version of the climate and economic justice screening tool, which will help agencies better identify disadvantaged communities that should benefit from climate, clean energy, and other investments through the Justice40 initiative. And to be clear, although the tool has not been out agencies are already adjusting their approach to funding in ways that are benefitting environmental justice communities. But the tool is an important added step and benefit. Again, they benefitted from the recommendations from the WHEJAC in developing the climate and economic justice screening tool.

The tool, once launched, will be something that we continue to update and revise as additional environmental data including cumulative impact analysis becomes available. And based on feedback from the communities about the environmental burdens they are living and experiencing. The tool will -- and should -- be a living resource that they improve over time. They are executing a transformational change in how federal agencies spend hundreds of billions of dollars so that the benefits of these programs are reaching communities that for too long have seen too much pollution and too little investment.

She concluded with in addition to fighting to secure historic environmental justice investments from Congress and to steer those investments in the right way, she wanted to briefly note two additional cornerstones of the President's environmental justice agenda on which they are focused. First, we have to make institutional changes across government to ensure that the voices and perspectives of environmental justice leaders are heard and accounted for in the federal decisions. This group, the WHEJAC, is a critical component of that effort, and so too is the White House Interagency Advisory Council which is enabling us to coordinate and mobilize in all of government environmental justice strategy coordinated through the White House.

She added that they're also developing an environmental justice scorecard which they will publish annually and will help hold everyone across the government accountable in the environmental justice commitments that they've made. Jayni Hein from our NEPA team will talk about the approach to restoring protections for communities through the National Environmental Policy Act. Because NEPA, as you know, is critical to ensuring that the federal agencies listen to and consider the voices of the environmental justice community's indecisions. The final cornerstone of the president's environmental justice agenda and whose urgency and importance she's seen first-hand in her travels and in her conversations with many of you is the actual work of alleviating the environmental burdens that communities are experiencing.

Getting the lead out of pipes, cleaning up PFAS, protecting fenceline communities from existing and proposed new toxic facilities. Strengthening and enforcing clean air and clean water standards. Helping vulnerable communities prepare for and recover from climate disasters and lots more. This work will require sustained and focused work across all environmental agencies in the years ahead using all of the tools at our disposal. Investment, regulation, enforcement, and more. They cannot do this work effectively without the WHEJAC, and they need their advice

and ideas and feedback.

Chair Moore opened the floor to short comments from the members. **Michele Roberts** asked about the plan for effective relocation that makes communities (like Mossville, Louisiana) whole in the Build Back Better and the climate plan. **Ms. Mallory** replied that she wasn't aware of any discussions on that.

Robert Bullard asked about to what extent can they assure that there is some continuity and consistency and that these agencies are grasping the letter and the spirit of Justice40. He also asked about the extent of any metric that would ensure that these projects will not exacerbate or somehow maintain the kind of infrastructure that has created many of the problems. **Ms. Mallory** replied that they weren't waiting for the tool to get people started in reexamining how they look at how they do their funding. That's the whole point of the interim guidance which laid out the kinds of issues that folks should be looking at as they think about how to have positive benefits for environmental justice communities and low-end communities at large. Those things are part of the discussion that's happening within the agencies, and that's the interaction that's occurring between the agencies and ONB and the agencies and them as they are trying to help them reorient. It is part of the effort towards accountability.

LaTricea Adams asked about the consequences for states where money may be misappropriated and not allocated specifically within the way it was anticipated in the Justice40 initiative and funding should be flowing into those communities. **Ms. Mallory** responded that it depended on how the programs are structured, how folks are actually distributing the money, and whether or not there are violations to that. The idea of Justice40 which is 40 percent, does mean that some percentage can appropriately go outside of what they've designated as disadvantaged. So, to give money outside of what they're going to identify as disadvantaged is not necessarily a violation, but that will be the kind of thing that they'll have to assess.

Chair Moore thanked Ms. Mallory and turned the meeting over to Ms. Martin.

DFO Martin reminded the Council this portion of the meeting is considered a consultation to obtain individual member views on issues that CEQ has not yet developed a plan of action for. So, this part of the meeting is really intended as an information exchange and not intended to report out on any specific recommendations.

1.2 Revision of National Environmental Policy Act Regulations

Chair Moore invited Ms. Hein and Mr. Maldonado to introduce themselves and then invited them to give their presentations.

1.2.1 Jayni Hein, Senior Director for National Environmental Policy Act – The Council on Environmental Quality; Jomar Maldonado, Director for National Environmental Policy Act – The Council on Environmental Quality

Jayni Hein thanked everyone for the honor of speaking. She introduced the rest of the team and stated that her focus will be on CEQ's rulemaking efforts for the NEPA regulations and discussed both our Phase 1 rulemaking and our planned Phase 2 rulemaking. There will also be

some time at the end to mention their greenhouse gas emissions guidance planned updates.

She spoke about President Biden passing the historic Infrastructure Investment in Jobs Act, a once-in-a-generation investment in our nation's infrastructure. This act will expand access to clean drinking water and high-speed internet, modernize public transit, accelerate electric vehicle deployment, and advance environmental justice and climate change mitigation in communities that have too often been left behind. So, this act is just designed and has the goal of growing the economy sustainably and equitably so that communities benefit from this historic investment for decades to come.

Now at CEQ, they view the environmental review process as critical to ensuring that federal projects are designed and built sustainably and equitably and in a manner that is consistent with the nation's needs and the president's goals. And indeed, NEPA provides a key framework to guide federal decision-making in complex areas by climate change mitigation, environmental justice, and resilience.

She explained that NEPA was signed into law in 1970 to promote environmental protection for present and future generations. NEPA itself established CEQ which promulgated its NEPA regulations in 1978. These regulations were largely unchanged for more than 40 years until the publication of a final rule in 2020 under the prior administration. In addition to issuing the regulation, CEQ also develops written guidance on a wide range of NEPA-regulated issues.

She continued with CEQ's long-standing NEPA regulations were subject to whole-sale revisions during the prior administration. This has caused confusion and concern that big holes would be left in environmental reviews and the end result could be more delays and setbacks as agencies cut corners or omit important components of analysis. That's why CEQ is taking steps to restore basic community safeguards to the NEPA regulations so that environmental reviews can be completed the right way and communities can truly benefit from the next generation of infrastructure.

She explained that they're approaching this rulemaking in two phases. Phase 1 focuses on the narrow set of targeted amendments to provisions of the regulations that are posing near-term implementation challenges. In phase one, they have proposed to restore critical elements that were altered by the previous administration and return to the text and the language from the 1978 regulations for those provisions.

Now in Phase 2, they will take a broader, more comprehensive look at additional changes that will help ensure full and fair public involvement in the environmental review process, meet environmental climate change and environmental justice challenges, and provide for an efficient process in regulatory certainty.

She then explained the goals of Phase 1. The proposed reforms that were announced on October 7th are guided by the fundamental principles of informed and science-based decision making, transparency, and public engagement. She explained the three core changes that were proposed in Phase 1 on October 7th. First, they would restore the requirement that federal agencies evaluate all of the relevant environmental impacts of the decisions that they are making. So, this is a proposed change to the definition of effects, and it would make clear that agencies must

consider the direct, indirect, and cumulative effects of a proposed action.

This change is intended to promote evaluation of a full range of impacts including climate change impacts and impacts on communities that are already overburdened by environmental concerns. The proposal would also eliminate some of the new limitations that were placed on effects analysis in the 2020 regulations, such as language stating that agencies generally should not consider effects that are remote in time geographically remote or the product of a lengthy causal chain. Now, CEQ provided several rationales in the preamble to the notice of proposed rulemaking for why we are proposing these changes. CEQ believes that making these changes would better align the regulations with NEPA statutory text and purpose and the changes would help ensure that important categories and effects would not be omitted like climate change or cumulative air or water pollution effects that are so important to disclose to ensure that our communities are healthy and safe.

She went on to say that secondly, CEQ is also proposing to restore the full authority of agencies to work with communities to develop and analyze alternative approaches that can minimize environmental and public health costs. So specifically, this is a proposed change to the purpose and need provision of the 2020 NEPA regulations that restore the language on purpose and need from 1978 to once again give agencies the flexibility to determine the purpose and need of a proposed action based on a variety of factors. They're also proposing to make a conforming edit to the definition of reasonable alternatives to make clear that agencies are allowed to work with project proponents and communities to mitigate or avoid environmental harms by analyzing commonsense alternatives.

So, the development of the purpose and need statement is a vital early step in the NEPA process. She saw it as foundational to a lot of the other elements of an environmental review because it sets the parameters for the range of reasonable alternatives that agencies must consider. And it helps inform the scope of effects analysis that an agency must analyze in an environmental document. The 2020 NEPA regulations modified this provision by adding language that requires agencies to base the purpose and need on the goals of a private applicant. CEQ proposes to revert to the language of the 1978 regulations for purpose and need so agencies once again have the discretion to base purpose and need on a variety of factors which can include the goals of an applicant but not to the exclusion of other factors.

She explained the third rule. It would establish CEQ's NEPA regulations as a floor, rather than a ceiling, of the environmental review standards that federal agencies should be meeting. Again, this is a return to the framework as it existed prior to the 2020 regulations. The proposed changes would restore the ability of federal agencies to tailor their own NEPA procedures consistent with CEQ's regulations to help meet the specific needs of their agencies, the public, and stakeholders. Now CEQ would continue to perform its long-standing role of reviewing any proposed agency's specific NEPA procedures to ensure that they are consistent with but not necessarily identical to CEQ's regulations.

But the proposed change would also help ensure that federal agencies ensure that their NEPA procedures and the NEPA documents and processes that follow from them meet the goal of NEPA to provide for the protection and the enhancement for the environment and human health. So once again this provides agencies with the flexibility to tailor their NEPA procedures to their

mission, to their particular needs and factual situations before them.

She mentioned that CEQ had held two virtual public meetings on Phase 1 of the proposed rule on October 19th and 21st. CEQ provided a 45-day public comment window for this notice of proposed rulemaking which is scheduled to close on November 22nd. Any public comments received will be used to inform the final Phase 1 rule. CEQ is tentatively planning to not extend the public comment period given the totality of factors. For example, they have heard from a diverse cross-section of public stakeholders that there is a real desire for CEQ to proceed expeditiously to a final Phase 1 rule that will restore the basic community safeguards. They want to provide regulatory certainty in the near term with respect to these core provisions. And perhaps most importantly, their work on Phase 2 offers an extensive opportunity to provide feedback on a wide range of issues as will be discussed soon.

She mentioned that in Phase 2, they're looking at other opportunities to ensure that NEPA can address 21st-century problems like the climate crisis and environmental injustice while providing for an efficient process of regulatory certainty and public participation. She opened up the floor for comments or questions.

Ruth Santiago said she was interested in knowing how cases that are governed by the steps originally see the alternative proposals, alternative approaches. Specifically, in the case of Puerto Rico, what they're seeing is that FEMA seems to be interpreting NEPA with the new 2020 changes rather than with the old. That is FEMA did not consider, in the case of Puerto Rico, a reasonable alternative such as distributed renewables, rooftop solar, for disaster recovery work that it will be funding on a very large-scale historic amount. They're not seeing FEMA applying that in cases where the old rule applies.

Ms. Hein replied that at this moment in time, they have the 2020 regulations in place. That is a core reason they decided to take a phased approach to the rulemaking and move as quickly as they could to get the Phase 1 rule in place so that they could close some of these kinds of significant holes that we see in the process. That's not to say that more isn't required, and that's also why they're proceeding as efficiently as they can towards Phase 2, but it's certainly informed our thinking about the phased approach.

She added that the other thing is they have been working with agencies and certainly are encouraging agencies to read the NEPA regulations consistent with NEPA's statutory text and purpose, including the purpose of environmental protection and transparency and public engagement that is stated in the statute. And so, where agencies have discretion and continue to have discretion to interpret the existing regulations that are on the books consistent with those goals and purposes and consistent with case law that says that they need to implement NEPA in that way that we are encouraging them to do that and not use the 2020 regulations as a basis for doing less than sound and thorough NEPA analysis that's legally required.

Jomar Maldonado stated that he doesn't necessarily see that as a situation where FEMA's trying to implement the 2020 regulations contrary to what's in '78. In the case of Puerto Rico, FEMA took a programmatic approach, a broad-based approach to where they try and address a specific challenge regarding the reconstruction of certain utility activities. By taking that more programmatic approach that's where the challenge comes in and the situation in Puerto Rico

where they may be some opportunities to explore alternatives for specific power generation and power transmission.

He added that the power transmission is the one that FEMA focused on first. They're still waiting for information from their applicant, in this case, the core entity that's doing the recovery plus the power authority there as well and trying to figure out if there are other alternatives to consider in power generation. If there's still opportunity there, what they did is more programmatically with the information they had before, and you'll see opportunities where they're going to go into more detail as more projects are specifically put forth for FEMA funding. **Ms. Santiago** asked if there will be an opportunity for public engagement before funds are dispersed on that new information that FEMA is waiting on?

Mr. Maldonado replied that there should be. All those activities are subject to the National Environmental Policy Act and the NEPA review process and unless these activities and projects come forth, then once FEMA finds that they're potentially eligible they have to follow the NEPA review process and that may include a specific environmental assessment or environmental impact statements even that require them to analyze and consider alternatives as they move forward. **Ms. Santiago** asked there will be a follow-up meeting to talk more about it. **Mr. Maldonado** answered that he would be happy to follow up with her.

Andrea Delgado stated that the broader WHEJAC could benefit from a separate conversation with them all about these NEPA modifications. **Mr. Maldonado** accepted the request.

Mr. Maldonado began his presentation. He stated that Phase 1 focused on three distinct changes. The effects analysis, bringing back cumulative effects considerations; making sure that agencies consider alternatives broader than just what the applicant is proposing; and also making sure that the regulations that CEQ has for NEPA are the floor and not the roof, meaning that agencies can actually provide more procedures to protect the environment and consider other resources and also consider their impacts on communities. But they're going to be moving into Phase 2 which is a broader discussion. It provides the opportunity for us to really go into all aspects of the NEPA regulations and explore what opportunities exist to improve upon it, to fix maybe changes and challenges that were created with the 2020 regulations, but also go beyond.

He said that opportunities existed over the years that they have maybe not taken advantage of and integrated into our regulations. So, the goal in the proposed revisions is to make sure they have an effective environmental review process that promotes better decision making consistent with statutory purpose, ensures fair and public involvement, provides an efficient process that has regulatory certainty, and meets our goals of environmental climate change and environmental justice objectives. Ultimately, we want to have a process that is guided by informed science-based decision-making, transparency, and public engagement.

So, to do this, they have been looking at all aspects and regulations. Some of the examples of areas that they're looking for in terms of exploring what they would be doing include environmental justice considerations. They saw some of the recommendations that the WHEJAC provided to the administration with regards to 12898 which is the executive order issued during the Clinton Administration on environmental justice, and there is some language in those recommendations about environmental justice and NEPA and how NEPA can consider -- better

consider environmental justice considerations.

He stated that they have certain elements in the regulations that talk about public engagement and transparency and what their expectations of federal agencies are on engaging and involving the public, involving communities as well that we would like to explore and see if there's more that we can be doing in this area. And then, scoping, the idea just like they're doing right now is this idea that before they even start, before they even propose an action, they would like to explore the issues, make sure that they identify the issues that matter, have a conversation to help us scope the analysis. That's the scoping concept. Scope the analysis to make sure that we are considering all aspects before they even go into the environmental review analysis.

Alternatives, are there elements that they could be changing in the regulations addressing alternatives that they should be considering, particularly when environmental justice and other resource areas are considerations? And then, another example is how climate change should be taken into account in NEPA reviews. Is there anything that they could be putting in the regulations that could help with this crisis and with this particular issue that is cumulative in nature? This pervasive issue is a global problem that we need to address.

He concluded with questions for the Council to consider helping them as they start thinking and identifying the topics. For example, what ideas do they have for improving the consideration of environmental justice in NEPA reviews for all federal government agencies? What could they be putting in the regulations to address this? Are there any changes with regards to public engagement and consideration of the community's views in the decision-making process itself? In the scoping arena, is there anything that they could be doing to improve? And with regards to virtual tools and tools to engage, is there anything more that they could be doing to put these regulations into the 21st century?

Nicky Sheats commented, for Phase 2, CEQ needs to help agencies take the no-action alternative seriously. EJ communities, when doing NEPA in front of EPA, should be provided technical assistance, and it should go beyond when just the NEPA actions involve EPA. EPA may weigh in on all the effects, but no matter what agencies are involved in NEPA action, there should be funds available for community groups to get its own technical expert so they can better participate.

For Phase 1, they strongly support putting cumulative impacts back in NEPA. In most cases, a good EJ analysis can't be done if there's not a cumulative impact analysis. CEQ needs to take action to make sure the cumulative impact analysis is done correctly, or at least correctly by CEQ standards. In their case, the cumulative impact analysis was really poor. He didn't know if it was taken seriously, and CEQ needs to take steps. He explained that CEQ needs to do training for governmental agencies on how to do cumulative impact analysis and how to do environmental assessments and environmental impact statements just to make sure they're being done correctly. He recommended that, before the training, they do a report that looks at past NEPA cases and says, how many of them was a no-action alternative view? How many of them were cumulative impact analysis and stuff? Was a cumulative impact analysis done correctly according to CEQ at least? And then that will fill in the base of the training.

He added that CEQ needs to take the lead and say to governmental agencies, they certainly think

NEPA needs to be taken seriously and they want you to take it seriously. Legislation passed recently that cemented some short-cuts or what other people call streamlining of NEPA without proper review, and that sends a bad message to agencies.

Kyle Whyte commented with a couple of points. One is in the recommendations that the WHEJAC gave on Executive Order 12898, they created a very specific understanding of public participation that would also relate to public engagement. There is the importance that communities and people who are affected have influence and that it's not just a box-checking exercise, so he strongly encourages the review of their recommendations as well as other bodies of knowledge about what genuine, meaningful, and real engagement and participation means.

He said that, as native people, they participate in public engagement processes because most of them are also citizens of the United States. Then there's also the nation-to-nation relationship with their tribal governments and the consultative process. Often in public engagement as well as in consultation, their cultures are heavily discriminated against in terms of their understanding of safety and environmental impacts. Oftentimes, their cultures are overrun by the dominant cultures and the assumptions they make about safety and environmental protection and stewardship.

He strongly encouraged those changes to public engagement need to end cultural discrimination. With regard to tribal consultation, recently the White House has made significant reforms in the form of memos and commitments including the strengthening of indigenous knowledge within regulatory processes, the strengthening of an understanding of treaty rights based on native people's interpretation. He hoped that the changes and reforms to NEPA would be very well coordinated with reforms to tribal consultation and the government-to-government relationship, including the capacity for tribes to be able to identify botched or problematic or non-existent consultation that occurs and to be able to take action based on those problems as a matter of environmental justice.

Kim Havey stated that some of the things he runs into are the existing facilities and existing pollution. Does NEPA have any ability to look at how they periodically review environmentally every ten years or something all of these types of facilities that are required to go through NEPA to be in accordance with the climate action targets they're trying to go to as well as the real efforts trying to reduce air pollution and chemical pollution in general? He asked if there a way to do modifications that would affect existing facilities?

Viola Waghiyi stated that 90 percent of their food comes from their lands and waters. She is concerned about food security issues. With the melting of the ice and the ice-dependent marine mammals, our main storage for long winters is in jeopardy. Their hunting has been greatly affected because there's no ice, so this results in her people going hungry. The health and well-being of marine mammals are affected by the surface of ocean warming. This is greatly affecting the seabird cliffs that are going to be extinct. This is a life and death matter for her people. They are already being exposed disproportionately from persistent organic pollutants, but also the sequestered pups with the ice glaciers and permafrost melting. Also, there are two formerly used defense sites, so they are already facing cancer crises, birth defects, neurodevelopmental birth defects in their children.

This is resulting in their freezers being empty, our elders and children being hungry, and, when they don't have any food, what's available at our native store is highly processed canned food which is not nutritious because everything has to be flown in. Sometimes they don't get planes for a week, and so, when commercial fisheries crash, they get monetary assistance. These are some of the things that need to be taken into consideration. When there are any talks on climate change, Arctic Indigenous people need to be at the table. They have discussions on solutions and are intricately tied to their lands and waters and air and the wildlife that has sustained her people for many generations. They are experts in their lands and waters, and they need to be part of the solution.

Carletta Tilousi reminded NEPA representatives that tribes are treated differently, and they need to be dealt with by all the federal agencies in a way that is in accordance with their federal policy. When they reach that stage of NEPA, they are already going to go down the process of approval. In the end, they always approve of them.

Chair Moore thanked everyone for their comments and turned the meeting over to Co-Chair Shepard to introduce the next speaker.

1.3 Climate Policy Update

Co-Chair Shepard introduced Gina McCarthy. She is the first National Climate Advisor, the president's chief advisor on domestic climate policy, and she leads the White House Office of Domestic Climate Policy, which is focused on localizing a whole government approach to tackling the climate crisis, creating good-paying union jobs, and securing environmental justice. She previously served as the 13th administrator of the Environmental Protection Agency and then as president and CEO of the Natural Resources Defense Council, the (NRDC). She is one of the nation's most trusted and accomplished voices on climate issues. She has been at the forefront of environmental and public health progress in a variety of leading roles for over three decades.

1.3.1 Gina McCarthy, National Climate Advisor – The White House Office of Domestic Climate Policy

Gina McCarthy thanked everyone for inviting her to the meeting and thanked the members of the WHEJAC for all of their hard work.

She assured the Council that their recommendations and reports have been really helpful in helping to think through all of this what essentially is newly thinking areas of how they move together in ways that they haven't in the past in ways that advance all of their missions moving forward. She said that she has spent many years with them on a variety of committees and opportunities to work together, and she believes that, at this point in time under the Biden administration, they have an incredible opportunity and incredible amounts of work that needs to get done together.

It didn't take President Biden long -- in fact, on day one -- to establish this National Climate Task Force in order to bring together all of the cabinet-level leaders across the administration so

that climate could be a top priority in every effort that we undertake. It's not just about the Department of the Interior or EPA, but it is about all of the government approaches how they look at life and how they move forward. They've been from day one using every agency and every tool at their disposal that we can martial to do the kind of climate response that isn't above focusing on sacrifice, what they have to give up for their future, but an opportunity for the present, an opportunity to give our kids today and in the future clean air and clean drinking water. It's an opportunity to tackle the kind of racial injustice and economic inequality that there is in this country and how they make that a core part of their thinking each and every day. And it is an opportunity to create millions of good-paying union jobs.

She added that when the president took office, he made progress in moving these ideas, this framing, these commitments across every sector of our economy. There have been incredible advancements in wind and solar projects at an incredible pace. They've been reducing super pollutants like HFC's and methane, and they're going to move forward to make sure that the rulemaking on methane and the oil and gas sector is moving forward and is as creative and aggressive as can be. They're providing communities over time with the opportunity to live a healthier life and to have working environments that they're proud of, that give people some breathing space because they get paid a living wage.

They're also looking at what the federal government does itself. How do they begin to lead by example and how they manage our vehicle seats and our buildings to make sure that they're leading the way to reduce emissions and that will provide an opportunity for creating demand for new technologies and providing basically grant strategies in grant contracts that states and local communities can really begin to access so they don't have to duplicate everything as if it's the first time anyone thought about it?

She stated that across all of these efforts, they're really focusing on environmental justice; it is not a separate issue. It is an underpinning for everything they do. They want environmental justice for the communities that have been most burdened by pollution and by racial and economic inequities. They need to deliver on the president's promise. That's what the Justice40 initiative is all about and it is actively being delivered so that they can make sure that at least 40 percent of the overall benefits from these federal investments in climate and clean energy actually accrue to the disadvantaged communities that need those investments the most. They've issued the interim guidance, and they're working with the agencies to develop and launch their implementation plans. This cannot be a guessing game; this has to be a method that they use and allow them to look at what every agency is doing and what the administration overall is accomplishing that is consistent with the president's commitment to making sure that we're implementing environmental justice issues appropriately.

She said that in August, ten agencies overseeing 21 programs developed Justice40 stakeholder engagement plans because this is not just about traditional consultation; it's ingraining consultation and engagement with disadvantaged communities into the DNA of how the federal government operates. In September, those agencies submitted plans on how those same 21 programs are going to maximize benefits to disadvantaged communities. And the great news is that agencies are already making the changes. FEMA built a resilient infrastructure and communities program. This is the first time FEMA has ever been on the front end of disasters instead of just of the backend. They are looking to prevent them rather than to catch up after

them.

And they've already begun adjusting the project selection criteria in this brick program, which is about preventing problems before they happen to ensure that the projects in disadvantaged communities are given a scoring boost when it comes to grant applications. They are not sitting on the sidelines here. They're also supporting the economic revitalization of communities that are hard-hit by coal mine and powerplant closures because it's the right thing to do. Those communities need help to ensure protection and new job opportunities for their workers and their communities. A little over a week ago when she was in Glasgow, Scotland, she was talking about the American people and the support that they have for a really fulsome climate response and one that creates jobs and protects communities.

She stated that she believes that is the best framing for the climate that she had ever seen. It's about investing in themselves again. It's about creating opportunity and hope. And earlier this week, she had the pleasure of joining the president for the signing of the bipartisan infrastructure deal. It was a historic investment that's going to deliver \$240 billion for environmental justice projects. And those projects are going to be about expanding access to clean drinking water to all American families by eliminating the nation's lead service lines and eliminating dangerous PFAS chemicals that we all know are overburdened communities.

It's about tackling legacy pollution and improving public health by cleaning up superfund and brownfield sites once and for all and reclaiming the abandoned mine lands and expanding access to public transit by making the largest investment in passion to rail since the creation of the Amtrack. It's going to deliver thousands of electric school and transit busses nationwide so that kids don't have to breathe in dirty diesel fumes, and it's going to address congestion in emissions near our ports and our airports which are surrounded predominantly by communities that are already overburdened and need a break. Those nearby communities deserve to be protected and this is going to help us target efforts in those airports and those ports so they can make sure that those needs are met.

She added that, while they're proud of the progress they've already made, they are just getting started and that's because they will have resources that they have never had before. President Biden campaigned on a promise to make government work for people again, especially those that have been historically left behind, and she fully believes that he's delivering on that promise as we're on the cusp of passing these incredibly historic investments in our Build Back Better plan, coming up starting this week. After months of negotiations, this Build Back Better framework -- which is Step number 2 -- really has incredible opportunities. It's going to be the largest investment to combat the climate crisis in American history, one that gives us the ability to reduce greenhouse gas emissions well over one gigaton.

That's one billion metric tons in 2030, and it's going to put us on a decisive path to achieve our climate goals. Most notably, the 2030 goal of cutting emissions at least in half, which is what science demands in this decisive decade. These investments are going to enable the construction, rehabilitation, and improvement of more than one million affordable homes boosting housing supply and reducing price pressures for both renters and homeowners. It's going to create a new clean energy and sustainability accelerator whose sole purpose is to focus on advancing projects and investments that benefit communities overburdened by pollution and injustice.

And it's going to establish this new civilian climate core that's going to put a diverse generation of Americans to work in good-paying jobs, conserving our public lands, and advancing environmental justice. But also, it's going to create a feeder system for those individuals to make it into a union which is essential to continue to grow our middle class and raise people out of poverty. For President Biden, it is all about people. It's about parents who want to put their kids on the school bus or in a car and know that it's better for their lungs today and for our future tomorrow.

And it's about families that can save \$12,500 off the sticker price of an EV so that those cars can be accessible and affordable to everyone. And it's about young people looking for opportunities to do meaningful work and bolster our community and climate resilience. And it's about families living in busy ports and highways so they can breathe easier. This is not just about protecting the planet, it's about each and every one of us, our communities, and our families. And so hopefully this is just a sampling of the investments in the historic package that has already passed and the historic package they're going to pass, and she's grateful for the incredible work of a broad coalition of environmental justice leaders who have really been calling for these investments and supporting the President's climate agenda and justice agencies so resoundingly because this is the decisive decade, and they are taking decisive action in this decade to combat the climate crisis.

She summarized by saying that she looks forward to continuing to partner in building the future the way that they know every community wants to do it. They want to have the opportunity. They want to have the ability to get a good job. They want to keep moving forward in an equitable, resilient way that will ensure a prosperous future for all of us. That's what this is all about.

Co-Chair Shepard thanked Ms. McCarthy and asked about how environmental justice, human rights, and indigenous rights are going to be protected as agencies move to invest in climate solutions that are generally not supported by environmental justice communities, such as carbon trading, some nature-based solutions, carbon capture and storage, and market-based mechanisms. They do understand that it is market-based mechanisms that have led their communities to the environmental degradation that they are currently experiencing. She asked about stalling carbon and these particular solutions and how they're going to protect EJ communities and do these market-based solutions at the same time.

Ms. McCarthy answered that this is a congressional bill, so it's not one that everyone can decide what ends up being in or not but it's not a done deal, and there are solutions in here that the environmental justice community will not find as their favored response. They're all in the same position of thinking that there are some ways of doing business that is better than others. One of the reasons why the president signed an executive order at the same time as he signed the infrastructure bill this week is that the executive order reinforced his commitment to environmental justice.

So, no matter what comes in this bill coming up, they will make sure that it is properly managed, that it's properly governed, and that they look at the outcome so that they can be assured that it's done in a way that won't exacerbate pollution and that will look and consider cumulative

pollution in their impact moving forward. It's terrific that WHEJAC and individuals are making their voices heard and they'll see where it ends up, but it is a bill that right now is filled with a plethora of different approaches, and they'll see where it goes. But no matter what approach, she doesn't want them to think that it's not going to be monitored, that we're not going to look at it from an environmental justice perspective, and make sure that we track the emissions moving forward.

Co-Chair Shepard asked what will the administration do to ensure that states and localities are accountable for using Justice40 funds in the way that the federal government intends to benefit disadvantaged communities? They certainly know that -- especially from the folks in the south -- that a lot of those states are not going to use the money in the way that it was intended. And they know that from past experience where our climate resilience funds are used.

Ms. McCarthy responded that even in recent money that was expended to address COVID-19, they've seen a lot of the money just sit there or not be utilized in ways that you would think were the best opportunities moving forward. It was a lesson learned, and they're learning that lesson.

She added that they've talked a little bit about engagement which is critical because as they all know if you really want to do environmental justice, it's not about the federal government dictating the answers for communities, it's about engagement. But there's also a need to take a look at providing oversight and accountability here. So, they know that not every state is going to be giving the money out to communities in ways that are consistent with the president's wishes and how this money was intended to be expended, so they're going to do a much better job at building those requirements and efforts into the solicitations. They're going to make sure that they can measure, and everybody has to track the benefits and where they're going, and they're going to give a level of transparency as they track so that everyone can see the scorecards that they have on how this is working so they can make changes if need be.

Everyone knows that this is a lot of money, and it will never come again potentially in their lifetime because, frankly, this amount of money has never been available in my lifetime until now. So, they will not squander this, and everyone will be able to see where the benefits go, and everyone will be able to make adjustments along the way to ensure that states and local communities are doing their job here and following the kind of criteria and accountability that is laid out.

Co-Chair Shepard asked if Ms. McCarthy agrees that disaster recovery funding from agencies like FEMA and HUD should be used to provide distributed renewable energy like they've talked about solar and storage in places like Puerto Rico that are susceptible to hurricanes which are more frequent, intense, and damaging? And also, in areas like the gulf coast.

Ms. McCarthy answer that yes, of course, she thought distributed generation, particularly in Puerto Rico and other communities, is a strong consideration and should be. And in communities that are very susceptible to climate impacts, they need to make sure that they don't simply rely on big systems functioning well. They're built into a lot of the programs. They have an opportunity for funding for distributed renewable energy like rooftop solar and storage in places like Puerto Rico and other communities.

The president's Build Back Better framework is all about making sure that there's access across the board using consumer rebates and other tax incentives to get access to solar and distributed energy resources, particularly in disadvantaged communities. That's what the clean energy accelerator is all about because it has created financing opportunities to make this real for communities, so they do know that they have a solar tax credit for residences as well. They're going all out to make sure that they don't have to rely on big systems, but they also go to communities that have not had access to distributed energy and find tax opportunities to start delivering in those very communities.

Co-Chair Shepard asked about this whole supply chain issue that's been impacting the economy, and she wanted to know about what the effort would be in terms of moving on zero-emission trucks, trains, and ships, warehouses that whole port and terminal issue. How you're going to engage communities most impacted by the supply chain actions that are being taken to expand 24-hour operations of systems and these are systems that interact and traverse EJ communities.

Ms. McCarthy replied that this has been raised as a concern and rightly so. But in the infrastructure bill, there's an allocation of \$17 billion for port infrastructure and \$25 billion for airports. The reason that's there is to make sure that we recognize environmental justice communities very often live on the fence line of these facilities, and they have so many little point sources. But there's also money in here for electric vehicle transmissions and transitions so that they can start electrifying the operations at these ports and there are opportunities for ships to make similar transitions. And so, it's going to be really important because the supply chains are necessary to fix. They need to have the supplies go to communities that allow them to live healthy and vibrant lives, but they have to address the emissions and there are significant resources to be able to do that for the first time.

She added that the one other thing is that most of the time when there is a port, there is a rail-line, generally, and the rail sector has been a little slow to adapt to cleaner technologies. That's another area where they can really utilize some of the funds here to take a look at how to get them into the picture so that, if we're investing in rails, we invest in clean. And so that's, it's a challenging area but it's one they can't ignore.

Co-Chair Shepard said that they know that money's going out the door for the American Jobs Act and now for the infrastructure bill, yet they don't have a final guidance and screening tool. How are they going to ensure that that infrastructure money gets to EJ communities?

Ms. McCarthy responded that she knows that folks are getting impatient, but they expect that in the next few weeks they're going to publish a beta version of the Climate and Economic Justice Screening Tool. That's going to be sent to WHEJAC for their review and comment. It's going to be really important that they get this right. It is a major tool for directing resources, and, once that's finalized, we'll be able to help the agencies deliver on this. And so, they're in the final stages of the interim guidance as well, so they'll be moving forward with both of those packages shortly. It's been a long journey here to get here and thanked them for their patience, but they'll get a shot at both of these things and take a look at them, and they'll use WHEJAC's sage advice to make adjustments moving forward. But they think they're doing better in terms of having the kind of screening tool ready to go and at least ready for WHEJAC's review and comment.

Robert Bullard asked what if states in the south say no to the guidance and the Justice40 screening and have several rated projects that they want to move out on infrastructure? Which in many cases have been harmful to the communities. The second part is as the administration moves out with infrastructure and talks about Build Back Better and climate and environmental justice, oil leases are being sent fast and furious in terms of the Gulf of Mexico. LNG terminal export terminals are being proposed and risky technologies such as CCS are being pushed forward fast and furious. In his opinion, that is incongruent, and it doesn't make a whole lot of sense.

So, the last point is there is talk about the initiatives, infrastructure, Build Back Better, and how they will somehow bring forth this economic renaissance of good-paying union jobs. In the south, people of color getting into unions are the issues at the heart of so many barriers that it would take much more than these programs, and he doesn't see the kind of aggressive posture taken by the administration in saying, Texas, if you don't send the money to Harris County in Houston, and Port Arthur, and Corpus Christi, and Austin where most of the environmental problems and the climate impacts in terms of resilience and vulnerability, then you don't get a dime. That's the only way that they will get results if they withhold the money and not be somehow timid or shy about dealing with these systemic problems.

Ms. McCarthy responded with it's a good follow-up to the last material question that was asked earlier. They've learned some lessons about sending money to states in the hopes that it's going to be expended appropriately. They just got the money, and the individual agencies are developing plans to ensure that it goes to the right communities, and they will have a system in place for ensuring that and tracking it. She gave an example of a Gulf lease that was approved, but the EPA couldn't stop it because it was already in the works.

Maria Lopez-Nunez stated that, hearing the net-zero and the propaganda about carbon sequestration, carbon capture, and witnessing that campaign from Exxon Mobile, she didn't think it's acceptable for anyone in this administration to help Exxon Mobile and other corporate giants greenwash themselves and say that this technology is somehow going to save our communities. It's creative carbon accounting called net-zero. They need real climate pollution goals that directly regulate emissions, particularly in environmental justice communities. She had heard the previous presenter admit that 60 percent of the funds can be used to harm our communities. Forty percent is going to be invested and it's going to be bragged about, but that other 60 percent is still outstanding. That's a losing formulation for the communities. She asked how they're going to get to real reductions if the administration and the whole world came back talking about this creative net-zero?

Ms. McCarthy responded that they have to take a look at what ends up in the final package, and they have to track this and to see where this is heading. The whole goal of this exercise is to do three things: to address climate change, the environmental justice component and the jobs issued, and how they move that forward.

Tom Cormons stated that they understand the severity of the problems, the greatness of the needs, and also the fact that this is an unprecedented opportunity. The fact that there is an administration that is put forward, Justice40, and made that kind of a commitment to

disadvantaged communities is extremely important. He knows that her office and the White House and many agencies have been working very hard, but they want the additional lift of having to apply Justice40 to all of the investments in Build Back Better. He asked what can people do to make sure that legislation gets over the finish line and is implemented properly? It's not perfect, but it is unprecedented, and it will move them to an entirely new level of investment in the things that matter and addressing the existential climate crisis.

Ms. McCarthy responded that he and others have great opportunities through their own advocacy to be supportive of this moving forward. Everyone has to give this bill their full-throated support. They're going to work hard to make sure that the president's vision is captured with his commitments on greenhouse gasses, on environmental justice, on union job growth, and that's the most important thing to make sure those are not lost.

Dr. Sheats suggested they're going to need EJ-specific language that defines and gives the funds, and the programs that define the benefits are going to go to EJ communities. She thinks that they need to be specific as possible to make sure EJ communities get the money they need.

Ms. McCarthy agreed that the right tool is needed for that to happen.

Ms. Roberts asked about communities like Mossville who made a fair and just relocation and also provided them with making them whole, meaning their health and what have you. **Ms. McCarthy** replied that investing significant dollars in both brownfields as well as superfund sites, which we know Mossville is, and relocation is part of the investment here. Unfortunately, many communities and many tribal communities up in Alaska and elsewhere have been lost, so flexibility is needed.

Beverly Wright informed everyone that she was with the administrator on his tour of the South. There's nothing like being on the ground with communities. Going up and down the Mississippi river, looking at communities who are still suffering so much from the lack of enforcement and regulations and the continuous inundation of these polluting facilities where more and more of them are coming to Louisiana on top of communities that are already sandwiched by all of these facilities is very disturbing. The communities' request is really one thing, relocation. Sadly, most of them want to be relocated.

In other places where they're going to stay, they want the facilities to be good neighbors and reduce their emissions. These communities represent people who are much nicer than her. Her demand would be much higher, much stronger, and with much more anger. They're just asking for facilities in their neighborhood, if you're going to be there, follow the regulations and don't pollute them in the ways they have been. The disturbing thing is that in going up and down the river, we have facilities where white communities have been completely relocated and the black communities are left. That's racist, and they have been there for years, and the facilities are saying they've relocated everybody they need to or want to relocate.

She stated that she is asking for an investigation in the corridor of these areas where black communities are left languishing while the white communities have been removed. Sometimes it's three houses left with no place to go, and the relocation monies are not enough for them to move anywhere. They are stuck, they are sick, and they are done. It was a really hard trip these last two days after doing this work for 30 years.

She added that the other thing is LNG, carbon capture sequestration. It has been said over and over again that it is not proven scientifically, and they are a product of an area called Cancer Alley where everything was supposed to be safe, but there were explosions and fires and leakages and they're still suffering. It is known that anything that man creates at some point is going to break. To replace oil and gas with LNG in the same communities that are still trying to recover from oil and gas is a miscarriage of justice.

She closed with there was a meeting with the mayor of a city and her concerns are the same as all of the mayors in mostly southern cities that are urban as compared to the rest of the state which is rural. If they are not very careful, money that is meant to go to cities like New Orleans and Houston will not make it there. They need to make certain that happens. **Ms. McCarthy** replied that she would like to chat with EPA folks to comment about the investigation she's looking for.

Ms. Santiago wanted to clarify that FEMA funds, HUD funds, federal government funds in historic amounts have already been allocated to the electric system. She asked that FEMA and HUD funding be invested and distributed in rural parts of Puerto Rico. **Ms. McCarthy** said she would check what they're doing at this point.

Angelo Logan commented about the administration's swift actions related to the supply chain congestion. The actions that have been taken and the exclusion in a meaningful way to address the environmental justice impacts and the climate crisis impact really don't demonstrate the administration's commitment to environmental justice or climate justice, and it would be a missed opportunity if the administration does not use this executive action to also include protections of local communities so that we're not just creating sacrifice zones along ports and freight corridors and around warehousing, but that we create real efficiencies and protections for communities and real planning. He also encouraged her and other folks from EPA and other environmental justice folks to interject themselves within the supply chain task force to make sure that they're not creating sacrifice zones along freight corridors and port communities. **Ms. McCarthy** acknowledged his comment.

Jade Begay thanked her for her acknowledgment yesterday at the tribal summit. It really meant the world to her team. She then asked about the White House's commitment to elevating indigenous traditional and ecological knowledge in federal policy decision-making and if this will apply to policies on climate. If so, are there plans to build an advisory council created around supporting this work, or what are some initial thinking around how these two areas will merge and be integrated?

Ms. McCarthy responded that she would have to follow up with Brenda Mallory about where they are in CEQ because they're going to be the lead on ensuring that traditional ecological knowledge is infused and managed in a way that traditional science is done.

Co-Chair Shepard thanked Ms. McCarthy for speaking with WHEJAC. She then turned the meeting over to Ms. Martin.

DFO Martin announced that a break is next followed by the public comment period.

1.4 Public Comment Period

On November 17, 2021, the WHEJAC held a public comment period to allow members of the public to discuss environmental justice concerns in their communities. A total of 57 individuals submitted verbal public comments to the WHEJAC. An additional 66 individuals had signed up to speak but were not in attendance. Each speaker was allotted three minutes.

1.4.1 Dave Arndt (Baltimore, Maryland)

Dave Arndt stated that all of the injustice is burdened on black, brown, and low-income communities. He has two incinerators within ten miles of his house -- one is for municipal waste and the other is for medical waste. The Baltimore region ranks among the worst in the U.S. for air pollution. A study by the Chesapeake Bay Foundation found the air quality in the region was ranked moderate or worse one out of every three days. The same study notes poor air quality triggers asthma and can cause other health issues. Little wonder then that the children in Baltimore City have asthma at twice the rate of the rest of the country.

The story doesn't stop there, it continues with plastics, the new coal. Baltimore has a single-stream recycling program, in total, only three percent of plastics are recycled in Baltimore. Of the total trash collected, about 49 percent of it goes to the incinerator where it is burned, then breathed in by residents. The toxic ash is taken to the landfill, located in the same brown, black, and low-income area. At the same time, petroleum companies are ramping up the production of single-use plastics to offset the decline in fuel use, thus increasing the waste stream being burned. Incidentally, on the medical waste incinerator, NIH's medical waste used to be burned in Bethesda, but now it's burned in Baltimore, a move from a white area to a brown, black, and low-income area. Baltimore does not have composting, so it's the same story, 40 percent of compostable materials goes to the incinerator. The rest goes to landfill, where large amounts of methane gas is produced.

Now add a few more layers, 36 RMP facilities, a chemical factory, which is a large emitter of carcinogens, a working port with piles of coal, plus major interstates cutting through the neighborhoods, all have a cumulative effect. Another example is we're trying to stop a crematorium from being built in a residential neighborhood. The EPA allowed the funeral industry to change the classifications of these incinerators to a non-Clean Air Act regulated industry, basically for marketing reasons, so profits over the health of residents. He ended with a quote from Richard Moore, the National Coordinator of the Environmental Justice Health Alliance, "You can't separate health from environmental justice, because environmental justice is health. And you can't separate issues of climate change and global warming because environmental justice and economic justice is addressing global warming and climate change. And so these intersections are very crucial."

1.4.2 Gregory Simpson - Naurashaun Presbyterian Church (Pearl River, New York)

Gregory Simpson stated that for many, many years public schools found in EJ communities have consistently succumbed to lower quality of education. This is particularly problematic in the resource-intensive fields of science, technology, engineering, and math. These are essential skills necessary to create a resilient human resource infrastructure. While the Justice40 Initiative

has, as a focus, of creating and improving how government agencies incorporate the EJ in their operations and the infrastructure bills will provide much needed upgrading to the physical environment in which students in public schools learn, of course, with the long-term benefit of job creation in green professions as one outcome.

He encouraged the Committee to also consider how education and training pathways for BIPOC students in EJ communities will benefit from these investments. Will the education in BIPOC communities continue to rest on aptitude testing, for example, such as regent exams, PSAT, SAT, and the advanced tests, such as MCAT, LSAT, and GREs, or are there other pathways that are being considered for students to get the education, critical thinking skills, and training they will need for good paying, green jobs in support of the infrastructure and development? Aptitude testing has for years been a significant barrier to entry to good paying STEM jobs for BIPOC students and BIPOC members. But is critical for environmental sustainability, climate change mitigation, and environmental growth.

He concluded by encouraging them to consider creating programs that permit both STEM education enrichment and focus on tutoring and mentoring specifically for aptitude test-taking skills among the EJ students and in our EJ communities. Again, while he doesn't necessarily agree that STEM education is the only way forward for economic mobility and stability over the long term for EJ students, in our current model of education, it is a crucial predictor of where a student will end up whether as physicians, healthcare professionals, scientists, EJ policy makers, private sector innovators, managers, et cetera.

1.4.3 Brent Newell - Public Justice (California)

Brent Newell said that his comments are regarding the environmental injustice resulting from the U.S. Methane Emissions Reduction Action Plan. The IPCC has recently declared a climate code red and called for methane reductions to stabilize our climate. Twenty-five organizations, including environmental justice groups, have petitioned the EPA to regulate industrial dairy and hog operations under the Clean Air Act in order to reduce methane. This sector of the economy represents 13 percent of total U.S. methane, but the administration and the methane plan only rely on voluntary reductions from agricultural sources.

The USDA has proposed to use methane from industrial dairy and hog operations as a commodity, as a fuel. This methane is harvested from liquified manure and is referred to us as factory farm gas. The USDA wants to combine factory farm gas with a new carbon banking and offsets trading scheme. This is proposed under the Commodity Credit Corporation. This factory farm gas and pollution trading scheme raise significant environmental justice issues, especially in North Carolina and in California. He respectfully asks the Council to recommend to the administration that the EPA use its existing Clean Air Act authority, grant the petition, and regulate methane from this massive sector. Environmental justice in rural communities does not include burning factory farm gas and subsidizing the factory farm industry. Environmental justice in communities near industrial sources does not include pollution trading. The petition is included in the written comment letter he submitted in addition to the oral public comment.

1.4.4 Joe Womack - Africatown CHESS (Mobile, Alabama)

Joe Womack reminded the Council that the last shipment of slaves came to this country in Africatown in 1860. Now, that was in 1860. One hundred years later, in 1960, the community leaders decided to vote and become part of the city of Mobile because, at that time, they still had outhouses and they still had wells and they were drawing water from the wells, but they had factories in the area. Now Africatown sits on the Tensaw River Delta in Alabama, and that's the second largest River Delta in the United States. Most of it is protected by the National Wildlife Association, but not the section owned by blacks in Mobile.

In 1960, they became part of the city of Mobile and the city of Mobile took advantage of the community sitting out on the water and started rezoning things from residential to commercial, and ultimately, industrial. At that time, there were 12 neighborhoods and 12,000 people. Now there are 6 neighborhoods and 2,000 people because no one really wanted to live around factories. They just simply pollute the area. Not only that, but they also want to build highways and byways through the community. When they first built I-10 back around 1975, they wiped out the downtown area of businesses. That was by design because they wanted the interstate to showcase the city of Mobile that was, at that time, beginning to grow. If you drive I-10 East from Mississippi to Florida, you'll notice that the interstate takes a turn, and it looks as if you're going to drive straight to downtown Mobile. All of a sudden, it takes a right turn and backs up. That's where all of the problems are caused by accidents and everything else.

Now they want to do it again and try to fix the problem by putting up a toll bridge for truckers, and the truckers have told them they're not going to pay that toll. They'll just simply come through Africatown and continue to tear up our community. So his group suggests that the highway department get involved and stop them from putting up the toll bridge and that influences the industries involved, get involved with the permits because these industries have to submit permits every so often to continue to operate, to expand, and even to put up a new industry, and get involved in the permitting process to stop some of this pollution.

1.4.5 Cheryl Johnson - People for Community Recovery (Chicago, Illinois)

Cheryl Johnson noted that her mother, the late Hazel Johnson, founded the organization. She is known as the Mother of Environmental Justice. She stated that one of the concerns she has in her community is the air quality issues. At one point in the early '90s, there were air monitors that were situated at George Washington Carver area High School. It was there for about a couple of years, and then the U.S. EPA decided to take the air monitor down with no information or no rationale as to why they have taken down the air monitors off the high school, but the other remaining three are allowed to stay up.

Her group wants to know, one, why did they take it down? Two, what were some of the readings as a result of this removal of these air monitors out of our community. For them to move forward, they've got to know what has happened to them. Unfortunately, her community has been involved with environmental justice issues for 42 years, and they are the last resourced community that doesn't get any information about what's going on in their community. Our community doesn't even have any educational curriculum in any of our schools to educate the kids about the environmental conditions in their community. Her mother labeled the community the Toxic Donut; they are in the center of the donut, and outside our parameters are all these polluting facilities.

Their kids can't even learn about air quality issues in our community. Their kids can't learn about the contamination in our community because they're always underfunded to be able to provide these types of services to our community. There is a big, vacant school in our community that should be revitalized so that they can educate their community, not just the school system but the whole community, to learn about how they can begin the processes to remediate their community and learn about environmental education in our community, to promote science and technology and energy and math in their community. They've been advocating for this for many, many years, and they still haven't had many of those resources provided to their community.

1.4.6 Carl C. Anthony - Earth House Inc. (California)

Carl Anthony stated that he's most interested and concerned about jobs and equal opportunity for students of color through K through 12 and then also at the junior college and university level because education is one of the main ways in which our communities have a chance to really grow and participate. The last three or four people commented on the importance of education in colleges and institutions. And I think that this is clear and evident at this point, especially since they've been able to achieve so much in the last 30 years.

At this particular moment in history, they're facing the transformation of the whole city, the whole civilization, which has to do with getting rid of fossil fuels and creating the opportunity for people to move forward in alternative solutions. Their communities have this great opportunity to move forward at the ground floor and integrate their work in the creation of a new economy, which they can be upfront in the next 30 years to integrate all aspects of the economy.

He mentioned that the measure that they have been hearing about for electric generation present numerous opportunities for building, not only rooftop collectors but also supporting the transportation infrastructure such as the loading docks and various other things. They also have opportunities to think about food and how the food distribution gets restructured as well as how farming works. They should be doing justice transformation of people who are operating in the current institutions, and there is an opportunity to create all of these things.

1.4.7 Cliff Villa - University of New Mexico

Cliff Villa stated that he spent more than 20 years as an attorney with the EPA in Washington, D.C., Denver, Colorado, and Seattle, Washington. As an EPA attorney, he observed a lot of EPA staff with good intentions, but little or no understanding of environmental justice. He tried to remedy that by developing internal training on environmental justice, including a course on EJ and the law, and EJ and superfund.

He believes that more EPA staff are receiving training now on EJ, but there is still a long way to go in helping EPA staff and managers understand their duties and opportunities for using their existing resources and authorities to pursue EJ across the EPA regions. For my part, he is still willing to help provide this training to staff from EPA and any other federal, state, or tribal agencies. He provided EJ training earlier this year to folks in EPA Region 10 and offered the same to EPA Region 6. He does not charge fees like a contractor or consultant. He is a teacher and wants people inside every agency to understand what environmental justice is and how they

can help achieve it.

He stated that, drawing upon his experience as an EPA attorney, one of his concerns is the impact of contaminated sites on EJ communities. In New Mexico, they have a listed superfund site in the town of Española, known as the North Railroad Avenue Plume, where ground water contamination from an old dry cleaner operation has lingered for decades threatening human health and frustrating economic development that is desperately needed in a low income, largely Latino community and Indigenous community. Through the assistance of the EPA Office of Environmental Justice, the North Railroad Avenue Plume has recently begun to receive the attention it has deserved for years. One problem he has consistently observed, however, is the fear of superfund by state and local agencies. The superfund can and should be understood as a tremendous potential resource for the assessment and cleanup of contaminated sites. He would like to see more use of superfund removal authority for providing more timely responses to community concerns. If he can help provide training or other information about superfund removal authority to state, local, and tribal agencies and organizations, he would be glad to do it. Just let him know.

1.4.8 Dr. Bonnie Sager - Huntington CALM (New York)

Bonnie Sager stated that two-stroke engines have been phased out of nearly all industries with the exception of lawn equipment. This is an area they'd like to see the EPA begin tackling to help address our environmental crisis. Many developing nations are eliminating the use of two-stroke engines due to the copious amounts of air pollution they produce. Air pollution is the number one environmental cause of death as stated by the World Health Organization. Up to 30 percent of the gasoline used in these highly fuel-inefficient pieces of equipment is released into the atmosphere. A gas leaf blower operating for just 30 minutes put out as much emissions as a pickup truck traveling 3,900 miles. This was performed by a test by the Edmunds Company. It is estimated that every time a gas leaf blower is filled by a landscaper, two ounces of gasoline is spilled, polluting the air and our groundwater. There are evaporative emissions also from the thousands of gas cans used to refuel two-stroke engines.

The EPA reports that Americans spill more than 17 million gallons of fuel per year refilling their gas garden equipment. That's more than the 1989 Exxon Valdez oil spill and the equivalent of 87 million tons of smog produced per day. By replacing two-stroke engines, gas-guzzling leaf blowers, and string trimmers with cleaner and quieter electric battery-powered equivalents, an example that can be set for global environmental accountability. The study by Edmunds found that a two-stroke gas-powered leaf blower emits twenty-three times the amount of carbon monoxide and nearly three hundred times the amount of non-methane hydrocarbons as a pickup truck. By making this one minor adjustment, they could help reduce greenhouse gas emissions, dependence on fossil fuel, and also reduce many public health problems, including asthma, cardiovascular disease, chronic obstructive pulmonary disease, hearing loss, hypertension due to noise, lung cancer, premature births, respiratory disease, and risk of a heart attack.

These health risks do not only apply to the public, but also to the employees of lawn care companies. Commercial electric leaf blowers and trimmers are now on the market and are comparable in work production to gas equipment. Battery blowers are a reasonable substitute. The use of gas leaf blowers comes with a high cost to our health, the environment, and the

enjoyment of living in our neighborhoods. They hope the EPA will promote more livable communities for everyone. They must also recognize the social justice issue. No human being should have to earn a living in our country by having a combustion engine strapped to their back while being enveloped in a cloud of toxic carcinogenic emissions. Most landscape workers are from minority groups. They ask the EPA to consider banning all two-stroke engine equipment and then work to phase out four-stroke engine equipment.

1.4.9 Guy Reiter - Menikanaehkem Inc. (Wisconsin)

Guy Reiter stated that his reservation has been fighting a sulfide mine proposition on the Menominee River for the last nine years. The Menominee River is the very river where our people come from here in Wisconsin. The Menominee River creates the natural border between Upper Michigan and Wisconsin, but their oral history states that that's where they were created, so it's very important to them. They've been battling for a very long time.

The proposed project is located on the Michigan side of the river. There are so many problems with that. Even though that's our ancestral homeland, sometimes they weren't consulted or even part of the discussion. Even other tribes have said that the company should be talking to the Menominee. He would definitely like further dialogue on the Back 40 Mine and definitely feel like they should have real consultation. That would be one of his recommendations, that they have real consultation with tribes and not necessarily look at these manmade borders as being who should be at the table.

The other thing he would recommend is that all environmental laws be revised. Those laws are written to exploit and extract minerals and things from their waters and their land. He wants to look to revise those environmental laws and they recognize and focus on the rights of nature. They want people to understand and see that nature has a natural place and should be able to have rights as humans do.

1.4.10 Sarah Bailey - Bridges into the Future/ Community Based Organizations Partners (CBOP) (Flint, Michigan)

Sarah Bailey stated that she was there to talk about Flint, Michigan, the home of the water crisis in which a manmade disaster occurred in 2014 in which the entire community was exposed to neurotoxins in the entire water system. They're on the brink of another disaster and catastrophe in Flint with the clearance of an asphalt emissions plant in an area where most of the residents are involved in a public housing situation and have already experienced lung ailments and the like as a result of an incinerator being in that area.

It was her understanding that the EPA was going to maintain control over that area and be certain that no other toxic waste companies would be able to come into the area to pollute the residents of that particular area. She asked if the EPA should develop some sort of mechanism by which when neighboring communities have the same environmental issues, that both communities have to sign off on a variance in order to allow such a plant to be built so close to another community. If that would have taken place, then the residents of Flint would have been able to give their own comments and be able to effectuate any kind of stoppage of this plant being authorized and built in their area. It is at the far end of the community that authorized it.

She thought this is a travesty, and it's a continued disrespect of people of color.

1.4.11 Jeffrey Schub - Coalition for Green Capital (New Jersey)

Jeffrey Schub thanked the president, the administration, and this Council for its incredibly hard work and its commitment to delivering environmental justice as part of the climate transition. He also praised the Build Back Better Act and its numerous provisions and billions of dollars that will invest in environmental justice. He called out the important role of inclusive financing in making targeted investments to deliver energy in environmental justice.

All communities and households should and can benefit from clean energy solutions that lower energy burdens, make homes healthier and more comfortable, and make communities more resilient. Innovative inclusive financing, including public capital and leveraging public dollars efficiently, should be coordinated with all federal programs and can deliver these benefits to disadvantaged communities by working through green banks, community development finance institutions, credit unions, minority deposit institutions, and other mission-driven finance institutions. He looks forward to the administrations and this Council's work on that topic.

1.4.12 Nayyirah Shariff - Flint Rising (Flint, Michigan)

Nayyirah Shariff stated that is part of a coalition to stop the installation of a hot mix asphalt plant in Flint, Michigan. His stated that his state environmental regulatory agency in Michigan, which is called the Michigan Department of Environment, Great Lakes, and Energy, is trash. They're trash because they are complicit in acts of perpetuating environmental racism. They just permitted the hot mix asphalt plant directly across the street, very close proximity to a public housing complex.

He then explained the history of this public housing complex. In the 1970s, there was a majority black community within the city of Flint that were displaced for the movement of capital and goods. They were living in the St. John neighborhood, and they were displaced for the construction of this interstate highway. Because of structural racism, they didn't get the money that they were owed. Their dreams of home ownership were destroyed, and they had to move into this public housing complex called River Park, which is on the edge of the city and directly next to another municipality where it's all zoned industrial now. This is where this hot mix asphalt plant will now be. And so you had a community that was destroyed, and the residents displaced, and now their children and grandchildren are being poisoned.

Other coalition members plan on speaking, but he wanted to lift up a couple of things. After this approval went out, EGLE sent a letter to Administrator Regan about all the great things that they are doing. One of the things that they learned during this fight is that the federal EJs training tool is not being used in any sort of decision-making process. So what's the point? He doesn't need an acknowledgment in all the ways that he's being poisoned, and they don't even know if this mission at EJs training tool is going to be used to stop any sort of new industries that are coming in. He doesn't need an acknowledgment that he's getting poisoned. He wants to stop being poisoned.

1.4.13 Romona Taylor Williams - MCUP (Duck Hill, Mississippi)

Romona Taylor Williams stated that environmental justice has no respected geography or person. Whether it's the intentional and systemic decay of the building environment in North St. Louis, Missouri, the crumbling water systems in Jackson, Mississippi, the raw sewage oozing from the ground in Lowndes County, Alabama, extreme flooding in the Mississippi Delta, or the co-communities of Appalachia, environmental injustice is stripping communities of their health, economic opportunities, and robust quality of life.

We cannot dismiss the dangers vulnerable communities face in the wake of climate change. They simply aren't prepared to as demonstrated by the winter storm that ravaged Texas and Mississippi or Hurricane Ida that crippled Louisiana in its impacts. In 2018, MCUP was blessed with a \$300,000 grant from the Southeastern Sustainability Directors Network to create a sustainability model in the small town of Duck Hill, Mississippi. Duck Hill has experienced severe flooding for decades that worsen over the years. Through achieving sustainability, education, and economic developments -- a SEEDs model -- they engage residents using EPA's seven elements of collaborative problem solving to identify their most acute and chronic stresses. Flooding topped the list of their priorities, and they brought together a team of climate scientists, architects, engineers, and a minority contractor with flood mitigation experience and were able to mitigate the flooding. The town of Duck Hill no longer floods. They had the project looked at by a team of engineers, and they were told that they would not be able to do the project for under a half a million dollars. We did it for less than \$150,000.

1.4.14 Anthony Paciorek - Michigan United (Flint, Michigan)

Anthony Paciorek read a letter prepared by Lashay Aderasaw (phonetic), who is a community organizer in Flint, Michigan, works with our coalition, and is a coalition member. She could not be there to comment herself. "On August 5, 2020, Governor Whitmer declared racism a public health crisis with Executive Directive 2029. What's happening with the Ajax Asphalt Plant is environmental racism. Yes, we need to fix the damn roads, but both HUD and the EPA have both spoken out and about this being a civil rights issue.

"Shortly after, on September 23, 2020, Governor Whitmer announces what she called Gold Action to protect public health and create clean energy jobs by making Michigan carbon neutral by 2050. This was also with Executive Directive 20210. To quote TV6, 'To ensure steady progress towards the goal and to prevent irreparable harm to Michigan's ecosystem, residents, and businesses,' and to quote her from specifically, 'The science is clear. Climate change is directly impacting our public environment and our economy and our families,' said Whitmer. The dangerous reality is that it's already causing harm throughout Michigan with the communities of color and low-income Michiganders suffering disproportionately, which is why I'm taking immediate action to protect our state. We owe it to our children and grandchildren to leave them a cleaner and safer, healthier world. (Inaudible) silence around Ajax's permit demonstrated his commitment to both Flint and the black community as stated.

"What we don't need is another environmental crisis. These kids that she spoke about protecting are the kids from these public and low-income communities. We've seen the stand-back approach before during the water crisis in Governor Snyder. These same kids have already been exposed to lead in their water because of the water crisis, and these same kids were exposed to

radiation poisoning. The same kids that had health issues due to an incinerator being present in their neighborhood, and now they want these impacts to affect black kids more? We need Governor Whitmer to keep her promises to the city of Flint, low income and other minority communities, cities of color to receive 25,000 in an issue ad contribution from Ajax, and quite frankly, seems like we're being sold off for a rather minuscule amount of money just as Governor Snyder did. I'd rather her legacy be of help instead of last-minute changes due to pressure. It seems as if her promises have been for show and no real plans of change. Let's not forget her promise to give Flint clean drinking water that never happened and then even celebrate such a judgment.

"She can't say it because she doesn't want to get into state affairs that she created for the Agency Environmental Justice Response Team with Executive Order 201906. She stated specifically that she'd be in consistent contact with regular reporting to ensure that all Michigan residents benefit equitably from the protections and policies of state government to achieve response team and officious office priorities or work reform. Representation from the departments that represented on the response team take part in the following workgroups.

"The communication and outreach workgroup focuses on fostering public engagement. No resident of Flint was made aware the plant was coming, which violates having public notice. This is something that the communications team can investigate. The research and data workgroup is developing an environmental justice screening tool specific to Michigan, which will identify areas of concern based on environmental data and health impacts. This community needs a cumulative impact study. The EPA has already spoken out about this publicly. The planning and policy workgroup is charged with recommending a pathway for environmental justice to be infused into state governance. The group should come up with a way to fix the damn roads that don't create another environmental crisis."

1.4.15 Carolyn Marsh - Save Whiting and Neighbors (S.W.A.N.) (Whiting, Indiana)

Carolyn Marsh stated that the Northwest Indiana side, which is at Lake Michigan, is an area of concern. It's the Grand Calumet River area of concern that isn't working. They're trying to clean up the area for 20 years and it's not working, but she's submitted written comments on that.

She wanted to speak about the rights of nature. She sees that there's a lot of propaganda about planting trees, which is really a corporate scheme in my opinion. She knows that the BP refinery is involved in that. They're her neighbors as they're right in her backyard and they want to plant trees. But what she's seeing in this Chicagoland area is thousands of trees being cut down. So they're not adding trees to help the environment; they're cutting down trees and replacing trees. They say that they're replacing trees because they are scrap trees. There's now all of a sudden scrap trees, even though they may be diameters of five inches. She's worried about the fact that there's too much money going to private landowners. She thinks that's taking away from EJ communities. She's reading that almost all federal money is going to public lands, but also it includes private lands, which is a new twist in their history.

She doesn't think that public money should be going to private lands as much as it is, and it's in the millions of dollars. She wanted to know, in this rebuilding of America, where are they going to get their tree supplier and natural resources? Are they going to get our trees from the Amazon

Rainforest or other rainforest? If they're going to import trees from other countries, that's morally and ethically wrong. If they're going to rebuild this country, they've got to build it sustainably and figure it out without exploiting other countries and other indigenous peoples around the world.

1.4.16 Barry Boyd (Sacramento, California)

Barry Boyd stated that he's speaking as a private resident, not with any organizations or boards. He said that he sees not only a lack of a bite but a lack of teeth that the EPA has consistently shown from this administration to the inception of the EPA from its lack of charging, having arrested, having tried, having convicted, and having prison sentences commiserate to the damage of those who have caused environmental violations.

It's easy to see that those who are in charge -- chairmen level, CEO level, executive level -- are the tennis buddies, golf buddies, partners of the current administration back again into the inception of the EPA's administration. That isn't a secret, and the audacity to sit here in yet another meeting, with another committee, yet another department, yet another, infuriates him. The niceties have gotten us to where we are today. The EPA should be proactive in reading all of these matrices that they have in front of them and take charge and mitigate the pollution by way of charging and stopping or going after those polluters instead of waiting for the citizenry to submit a request for help.

They can start here in the city of Sacramento, District 8 and District 2. They've got the matrices. They see the deaths and the illnesses caused by air pollutants. Please call the council members and say, hey, we have federal air monitor devices that we can bring out there. Are you interested in having them? The local government won't. They want the cheesy down version so that they can continue to say, oh well, we've spent two years analyzing, we need the federal ones. We need help. Just like you've heard from so many of these individuals, we all need help. Get the teeth in, administer your bite, and stop with the gladhanding and cheerleading.

1.4.17 Diane Lauricella - Norwalk Zero Waste Coalition (Norwalk, Connecticut)

Diane Lauricella stated that she formerly worked as a regulator and investigator in the RCRA and Hazard Waste Division of the state of Connecticut back in the '80s. She is now in the private sector consulting and is self-employed as a community organizer and environmental consultant about site assessments. She wanted to impart four points that will help explore the Justice40 monies but also the near future of the EPA and all of the related federal programs.

Number one, as a former regulator, her job was to look for and make decisions about sites that were polluted, to see whether they qualified to become federal superfund sites. She eventually found one in Norwalk, Connecticut, and she's very proud that they're cleaning it up after 20 years or so. EPA needs to make sure there are funds to the states, and that they spend those monies to identify the continued legacy of environmentally polluted sites, especially starting in our environmental justice communities of underserved and overburdened. She suggested that they look at a map and literally check the old lists and prioritize which of these sites need cleanup immediately. Some are privately held, of course, and there has been a long lag list of that.

Secondly, she suggested that they must find a way to expedite, find a way to teach citizens how to use the government to clean the air when, for instance, a contractor yard has uncovered sand and gravel operations with noise and silica dust, which as we know, is a human carcinogen.

Number three, there needs to be a major effort in starting an environmental justice legal defense fund. Many of the people that she consults with are pro bono, and that has caused her to suffer, but she does it because she cares. Many of these citizens need technical help from not only lawyers, but also consultants like herself who know how to look for site records in both local, state, and federal programs.

She concluded with there's a need to increase our environmental site assessments and enforcement staff at every level of government, especially the state governments because many local towns would not be expected to become experts on this. They need help to make sure that we have staff that is well-trained and appreciated.

1.4.18 Liat Meitzenheimer - Fresh air Vallejo (Vallejo, California)

Liat Meitzenheimer stated that she submitted comments in writing but does want to add voice to the concerns already raised that the funding is used in the spirit intended and not misdirected, like much of the ARPA funds that were provided by the Biden Administration. There needs to be better mechanisms in place for accountability and penalties, and clear guidelines for cities to use that can't be purposely misinterpreted to water down any actions needed to keep our air, land, and water clean. I want to thank this group for the opportunity to participate and learn from these sessions and look forward to more opportunities in the future.

1.4.19 Leatra Harper - FreshWater Accountability Project (Ohio)

Leatra Harper stated that she can sympathize with so many of the testimonies that shared. What's happened in Southeast Ohio because of the fracking industry has really accentuated the environmental justice issues that were there right along in Appalachia. She hopes that they can work together with the federal government, especially with the infrastructure, some of the funding that will be there that they can bring it to Appalachia to help people with jobs. Without good-paying jobs that pay a living wage, they are going to be sacrificed to yet another extractive industry that pollutes our environment and makes people sick. It leaves a region much poorer in the long run.

To illustrate, they were meeting with some local officials, and they were presenting what they call A Better Vision for the Valley. They want to be free of the fracking-exploited, extractive, fossil fuel-based industries, and they are especially being threatened by yet another petrochemical facility like the Royal Dutch Shell up the Ohio River. They certainly don't want that. They need jobs that are not going to make us sick, that are not going to prop up the fracking industry.

Ohio is also the designated frack waste dumping ground of choice. They don't have adequate regulations to protect the air and water from the toxic radioactive waste that fracking creates by the billions of gallons and billions of tons. What they're finding is that there are even injection

wells that are leaking into surface and ground water. They're communicating with uncapped conventional wells. This industry does not have adequate bonds or severance. They can see that their playbook is to stiff them with their cleanup costs if that is even possible. So they're hoping that somebody will take a hard look at the fracking industry and roll back the Halliburton loophole so that toxic radioactive, hazardous frack waste is handled and disposed of properly.

Perhaps, even if it were classified as it should be, the industry would have to leave and then her area would be able to have a chance for better jobs that are given to other regions that don't have a heritage of polluted air and water. That would preempt other cleaner industries from coming into town. So they're trying to get with our local officials to do something and to not be so beholden to the fracking industry, which will pay fines just as a cost of doing business, as they're caught polluting. They don't have enough regulations. They don't have enough inspectors, and they certainly don't have the political will to be able to address the conditions that have been created that are making people sick. So they are hoping that better jobs will come to Southeast Ohio. That would be the solution because the only reason that industry has a foothold right now is they promise schools. They promise revenue. They promise jobs, and a lot of those promises have not come forward. So please, unlike the commissioner that we talked to that said he didn't want to get people's hopes up of bringing jobs to the region. That's what they really need.

1.4.20 Michel Lee - Council on Intelligent Energy & Conservation Policy (CIECP) (New York City, New York)

Michel Lee stated that she previously worked with law firms in New York City representing primarily very large corporations. About 20 years ago, after 9/11, she moved over to the public interest area where she works primarily on environmental health, environmental justice, and public health issues. Her primary area of focus is nuclear issues starting with uranium mining, going through the full fuel chain, to waste. It really strikes her hat if other areas are being regulated with the same level of disregard for humanity, the environment, the water, and future generations, everyone is in very, very serious trouble. The environmental impact statements that she has read are proforma, really meaningless blather, mostly not analyses, just throwing out some facts and then deciding everything is fine.

It strikes her that maybe one of the best things the Committee can do is to urge the setting up of mechanisms that can somewhat level the playing field for communities and environmental justice experts. And especially to broaden the way that agencies review sites because most of the agencies are very siloed. Their levels of expertise are very narrow. While there is a serious issue of regulatory capture, there is a serious issue, frankly, of lack of expertise. That is very serious in the nuclear regulatory commission, but it certainly applies to other agencies as well. She hopes they will set up mechanisms to further public input and perhaps ways, particularly to address the lack of public transparency.

1.4.21 Gregg Newsom - Detroit People's Platform (Detroit, Michigan)

Gregg Newsom stated that he wanted to lift up his fellow Michiganders in Flint around the Ajax asphalt project that was just approved by the state regulating body. He lives in what they call the Impact Area of the new Jeep plant, which has been a major expansion here on the east side. He's

working with many of his neighbors who are on a street called Beniteau. It's what they call a frontline street that runs up against the Jeep plant. This plant, they estimate, is kicking out 900 Jeeps a day.

Since the expansion project was announced in 2019, EGLE, which is the Michigan regulating body, has approved air quality permits without the consideration of the proximity of the residents. The existing public health crisis here in Detroit is one of the areas of the city with the highest asthma rates, and Detroit has triple the asthma rates of the rest of the state of Michigan. We've got extreme poverty here. This is a majority-black neighborhood. It's been subject to systemic injustice for decades. One of the issues is that EGLE's decision to issue permits requested for Stellantis, which was back in the day, Fiat Chrysler, in a short period allowed for a significant enlargement of air emissions in a low-income community where nearly all of the residents live within one mile are people of color. And they're already inundated by other industrial sources and amounts of discrimination.

One of the issues that they have here is they're now experiencing violations. On September 20th, 2021, Stellantis received the first of what's become three air quality violations so far, and residents here are still being overwhelmed by paint smells, burning throat and eyes, and headaches. It's a real problem on the street. One of the things the Beniteau residents have done is calling the state's pollution emergency line, and that's been driving these violations. So it's residents that have been bringing the violations here. There has been no action to stop it. There have been three violations so far since September, three a month, and production keeps on going. It just hasn't come to an end, so what they're asking for is for support with moving a civil rights complaint that's been placed with the EPA against the Michigan regulating body EGLE. We need that to be fast-tracked so that we can get some relief to residents on the ground here now. This is a systemic issue for EGLE, and they've seen it happen across the state. The residents here in Beniteau in the shadow of the Jeep factory need to be heard.

1.4.22 Diana Umpierre - (Florida)

Diana Umpierre stated that two days ago a satellite was intentionally destroyed by an anti-satellite weapon test that led to a cloud of thousands of new space debris in low Earth orbit and an emergency with ISS astronauts taking cover. You may have seen statements that were issued, including one by my former Florida senator, and current NASA administrator Bill Nelson condemning the reckless act. Secretary of State stated that this will now threaten satellites vital to the nation's security, economic, scientific interests for decades to come and will significantly increase the risk to other human spaceflight activities. There's an even bigger intersectional crisis taking place for which the U.S. government shares significant responsibility. She shared some relevant environmental justice issues and disproportional cumulative impacts that are not making headlines that the White House, the CEQ, the federal agencies (in particular the FAA, the FCC, and the Department of Defense and NASA) are failing to fully and holistically consider.

One, in Boca Chica, Texas, for instance, the FAA appears ready to issue a finding of no significant impacts next month for SpaceX to get experimental permits and licenses that would allow them to test and launch and land the largest rocket ever with the largest payload ever, the Starship Super, without a full-blown environmental impact statement. To examine all the

potential impacts that would disproportionately affect low-income communities of color and indigenous tribal members that have long endured social and environmental injustices at the Texas border.

She explained FCC's role they play in this mess. In 2019, the first batch of SpaceX Starlink satellites was launched from Florida. Since then, scientists have been in a race against time to analyze and communicate the impacts. This has led to many meetings, some in the U.N., and reports outlining the serious issues and the role that the FCC plays in categorically excluding these satellites from any NEPA reviews. This is where the intersection of issues comes to play and how environmental injustices go on. Due to this cast exclusion, FCC is failing to consider any environmental justice issues and failing to meaningfully engage. Her fear is that if this continues, they're going to end up making Earth a sacrifice. She demanded urgent involvement by the White House in what's happening in Boca Chica to ensure that all federal agencies are considering the environmental injustices of all actions related to the space race.

1.4.23 Stephen Buckley (Massachusetts)

Stephen Buckley stated that he was speaking for himself, and his opinions do not necessarily reflect the organization listed. He said that he used to work for the federal government at five different federal environmental office agencies. Much of that work involved the National Environmental Policy Act, either writing or reviewing other agencies' NEPA documents. A lot of people don't understand that it's not so much an environmental act, but it's really a public engagement act where regulations say that the public is supposed to be involved in the decisions that affect their lives. Luckily, there is the technology that allows that, like Zoom, to participate without having to get a babysitter to go across town or go to the state capital to share concerns about decisions that are being made on their behalf.

Human nature being such as it is, people don't like to involve a lot of other people in the decision-making process because it slows things down. That's why bureaucrats always try to get out of doing an environmental impact statement because it'll just slow things down, so they shoehorn it into a finding of an environmental assessment which gets a lot less attention. Only one percent of all federal actions are made into an environmental impact statement, but everything else is below the radar. He's asking that the Commission make sure that CEQ allows people to come forward who can tell them what's not working with NEPA not just turn back the clock to what it was before Trump but also allow the people to anonymously go to CEQ and tell them what it is that's happening, what's wrong, without their getting fired like he was.

1.4.24 Alexandra Campbell-Ferrari - The Center for Water Security and Cooperation (Washington, D.C.)

Alexandra Campbell-Ferrari stated that she has five recommendations that the WHEJAC should consider providing to CEQ and EPA. First, CEQ and EPA should investigate the application of the financial capacity assessment in the negotiation of consent decrees under the Clean Water Act. The FCAs are being used in the name of equity and fairness to delay compliance with regulatory requirements in communities without the financial capacity to support higher wastewater rates. However, there is very little data and information available about which communities the FCA has been applied to and how the FCA has impacted the

timeline for compliance and the terms of the consent decree. We need to know how much longer lower-income communities will be exposed to pollution in comparison to wealthier communities.

Second, the EPA should study the use of exemptions and variances under the Safe Drinking Water Act and ensure that their application is not concentrated in low-income, black and African American, and Latinx communities.

Third, funding from EPA to drinking water and wastewater treatment plants should be prioritized to communities based on four considerations. First, that the utility is not in compliance with MCLs or secondary treatment standards. Second, that the cost of compliance would exceed the financial capacity of the rate payer base, i.e., where the community is composed of a higher percentage of lower-income residents. Third, that the community has been traditionally underserved, such as black and African American communities. And, fourth, the utilities are experiencing greater impacts from flooding and other storm events driven by climate change. It is our responsibility to ensure that all communities, irrespective of race, color, gender, ethnicity, and income level have access to safe drinking water and safely managed sanitation.

Fourth, funding to drinking water and wastewater treatment plants from EPA should require that utilities prohibit water shutoffs against low-income households who are unable to pay their water or wastewater bills. The use of water shutoffs against lower-income households unable to pay their water bills represents a weaponization of poverty and the practice should not be financially supported by EPA.

Finally, and on a very different note, every effort should be made to eliminate water pollution from agricultural sources. Our water security does not need to be compromised to achieve food security. Agricultural pollution must be governed by the Clean Water Act. While this would require legislative action, it is important to note that the impact of agriculture on our water resources can no longer be ignored.

1.4.25 Anita Cunningham - Robeson County Cooperative for Robeson for Sustainable Development (Lumberton, North Carolina)

Anita Cunningham stated that she wanted to talk a little bit about the environmental injustice that's going on not only in Lumberton, North Carolina but all across North Carolina, as it relates to the wood pellet industries. The wood pellet industry makes the wood pellets, ships them overseas to Europe to use as energy, and our allies that are in Europe are saying enough is enough and they're not interested in it either. The dirty industry that we see happening here in our mostly black and black and brown communities and the environmental justice that continues. She wants them to stop for right now issuing millions of dollars in subsidies to the companies that bring this dirty industry to North Carolina as they look at and try to have more analysis of the cumulative impact to these communities as well as stop permitting, issuing permits for these companies.

She has heard a lot about what people were saying on the board about environmental injustice and if she didn't know any better, if she didn't have any knowledge about what is happening here, she would have said that sounded absolutely wonderful. But she does know what's

happening and it continues to happen, and at some point, enough is enough. She's tremendously saddened by the North Carolina Department of Environmental Quality that continues to issue these permits and provides these subsidies. She asked, has an environmental injustice community ever become just? If it has, she wants to know how that happened because she would be interested in that happening in her community. She stands in solidarity with those that shared before her about all of the environmental injustice that's happening in their states, in their communities. In the United States and on this planet, they are in a climate justice emergency, and let's act like it's an emergency.

1.4.26 Mara Yarbrough - New Mexico Environmental Law Center

Mara Yarbrough stated that she works with a coalition of environmental and community organizations that are concerned about the impacts of oil and gas operations on communities and the environment in New Mexico. Her comments address ongoing gas and oil development in the Permian Basin. Time is running out, but there is a chance the clock can be slowed if gas and oil development in the Permian Basin is ended once and for all. Gas and oil extraction in the Permian Basin disproportionately harms overburdened communities and significantly contributes to climate catastrophe.

The Permian Basin spans over 6,000 square miles in Texas and New Mexico and has been referred to as the world's single most prolific oil field. Gas and oil development in this region is a double-edged sword because, while it adversely impacts overburdened frontline communities, those very same communities have come to rely on the economic benefits of the industry through jobs and support of local businesses. Additionally, the state of New Mexico is unsustainably dependent on revenue from oil and gas operations to help fund the state's public education programs. Gas and oil operations in the Permian Basin emit a range of toxic chemicals that poison frontline communities, including methane and smog-creating chemicals, all of which cause a slew of health problems like asthma, cancer, neurological conditions, and many others. We must activate an imminent just and equitable transition away from oil and gas, one that completely phases out oil and gas development in the Permian Basin, while providing viable economic alternatives to frontline communities as well as alternative sources of revenue for the state.

If the Permian Basin continues to be exploited for gas and oil, overburdened frontline communities will continue to suffer and the climate crisis will accelerate and intensify. The time is now and ending gas and oil development in the enormous Permian Basin oil field may be our nation's greatest chance to put the brakes on climate change before it's too late. She recommends to the CEQ that it supports ending federal subsidies for the gas and oil industry, that it ensures that direct funding to New Mexico is specifically channeled toward a just and equitable phase-out of gas and oil that economically supports workers and communities directly, replaces lost revenue for public education, and to continue working toward permanently discontinuing leasing for gas and oil activities on federal land in New Mexico.

1.4.27 Queen Quet - Gullah/Geechee Sea Island Coalition (St. Helena Island, South Carolina)

Queen Quet stated that she is very concerned about many of the issues that have been presented

before her tonight, but she wants to specifically focus on water rights and cultural heritage. The degradation of the environment degrades the cultural heritage of the Gullah/Geechee Nation because they are inextricably tied to the land and the water. They harvest from both the land and the water. Therefore, while going forward with their Gullah/Geechee sustainability plan and their ocean action plan and working on ensuring the restoration of the salt marsh along our coast, they have also been inundated with having to fight various regulators from the federal government down to the state level that did not follow NEPA policies. They have Departments of Health and Environmental Control that need new controls because they are not protecting the health of the community or the environment.

Just to give a list of examples, they are dealing with the Savannah River site in South Carolina where plutonium pit mining is being permitted, even though NEPA practices were not done effectively. The engagement with the community was not done effectively. They fought several sand mines along the coast of South Carolina. They are currently dealing with the FAA trying to prevent the Camden Space Port from harming the environment further in Coastal Georgia. They are dealing with a massive amount of negative climate impacts to our waterway through ocean pollution because of the allowing of overbuilding on our coast with the runoff of chemicals not only from commercial farms but also from golf courses and resorts.

They would like to show how to do “EJ we way,” so they would love to be able to work with this Council to show things that they have been speaking to the federal government and the international community about that is culturally based, culturally sensitive, culturally competent ways to live in balance with the environment. That is not just us negatively impacted by others moving in and bringing their contaminants to us. She said she will engage more in writing and looks forward to welcoming them to their shoreline.

1.4.28 Belinda Joyner - Concern Citizens of Northampton County (North Carolina)

Belinda Joyner said that environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. This is what they say environmental justice is supposed to be. Apparently, it doesn't pertain to communities of color. He lives about three miles from an Enviva plant, and they have people that are prisoners in their own homes when Enviva is sitting right dab in the middle. He means a community of people looking out their front door can see it. From the back door, they can see it. On the side, they can see it. They're getting all this dust and all this pollution where they can't go out and cook out without putting a tent up. They have to wash their cars every two or three days, power wash their house every two or three months.

She's met with DEQ and DAQ. They've been in her home last year in February. She took them out to these impacted communities. They talked to the people. They saw for themselves what they were going through. Her town is home to Enviva, to a hog farm, to the Atlantic Coast Pipeline, so my question is, when is enough going to be enough? How much do you have to put in a community to know that this community is over-impacted? She mentioned cumulative impacts, they're not looking at that because when someone looks at the particulates that come from Enviva, it could cause cancer, it could cause asthma, depression when you got trucks up and down the highway 24/7 and people can't sleep. All this is known. She was in Michael

Regan's office last year in February. They had a public hearing in 2019 because Enviva wanted to spend \$45 million to expand, and they granted the permit. Her question to Regan was, why was the permit granted? Well, as long as they comply with what the state says they should be, then the permits are granted. Well, then, why have a public hearing? Their answer was to get the comments from the people so that they can make the process stronger. Then when are they going to start doing it? When are people going to stop listening and start hearing the people that are directly impacted by these things in their communities?

The only thing that separates these people from Enviva is a chain-link fence. When the wind blows, it blows everywhere. She wants somebody to stop listening and start hearing what they are saying and know that they matter, they breathe, they've been here all our lives. They can't get up and move because they chose to put a polluter in our community. It's not fair to them and she just needs somebody to look out for them as though they are looking out for themselves and not let profit over people always be. It's always about the money and not about the people that are being directly affected by this.

The DEQ and Michael Regan know Northampton County. They've been there. They know what's going on, but still nothing has changed. So where do they go from here? Who do they reach out to? She just wants change.

1.4.29 Phoebe Gooding - Toxic Free North Carolina (Durham, North Carolina)

Phoebe Gooding said that industrial agriculture contributes tons of pollution annually into the air, water, and soil of North Carolina. Massive greenhouse gas pollution, industrial ag, and centralized animal feeding operations (or CAFOs) specifically emit a disproportionate amount of methane and nitrous oxide negatively impacting the health and quality of life for nearby communities. Depending on the size of the CAFO and the number of animals on the farm, manure production can range between 2800 tons to 1.6 million tons a year. Industrial ag specifically releases more potent greenhouse gases annually compared to other sectors of industry. The relative amounts of greenhouse gases from ag are in the forms of methane at 36.2 percent and nitrous oxide at 51.4 percent.

Industrial agriculture is built on a legacy of racism and extraction, and we see this continuing today in North Carolina. In North Carolina, CAFOs are having devastating health impacts on surrounding communities, which are disproportionality likely to be black, indigenous, and Latino. They make it harder to breathe, to live, and to work for those that work at them and live near them. The people cannot get caught in false solutions like capturing methane for biogas. CAFOs are structurally not able to aid in our climate and environmental justice solutions as they currently exist. So the people need real solutions. They need WHEJAC to make recommendations that steer them away from industrial ag like CAFOs to smaller-scale farming systems that can help sequester carbon and improve air and soil quality as well as the health and livelihoods of community members. They need a just transition away from industrial ag, much like they need one in their energy sector that reduces greenhouse gas emissions and considers the health and safety of workers and community members.

Her group would like WHEJAC to consider recommendations for communities living near CAFOs as EJ communities that need investment benefits to help mitigate their pollution burden,

which these benefits and investments need to be defined by the communities themselves. They'd like WHEJAC to recommend issuance of federal guidance to inform the assessment of cumulative impacts on community members living near CAFOs, and also to issue federal guidance to inform the assessment of disparate impacts and how land use policy and economic incentives for CAFOs and industrialized ag is negatively impacting the health of surrounding and marginalized communities.

1.4.30 Renee Cail - BREDL (Georgia)

Renee Cail states that they are working with so many problems: nuclear reactors close to black communities, marginalized communities and large corporations with their toxic emissions. They are killing rural communities of color, disenfranchised communities, marginalized communities. They know that industries have to be in communities, but corporations come into the communities violating and invading the rights of the people who are there living and have been there for years. The polluting companies come in and they have violation after violation after violation, and people are beginning to feel that they don't have any type of help coming. Currently, they're battling in metro Atlanta, in Stonecrest, a material recovery center or recycling center that crushes cement. They crush all types of things from construction and demolition. Corporations are coming into the neighborhoods with warehouses. In the Carolinas, mining companies, biomass plants, asphalt plants, and the Mountain Valley Pipeline are trying to come through.

Cell towers in Atlanta are all over the black community. Inefficient wastewater treatment centers are here, and sewer lines are deteriorated with Atlanta black communities getting all the sewage coming through our neighborhoods. Residents are subjected to the diesel emissions from these 18 wheelers. We have to deal with stenches, shaking houses, and polluted water and air. It's just a nightmare.

She's glad that they have this conversation going. She thinks pulling together, they can make the United States, even other parts of the world, safer and better for people to live. They won't stop until everyone can enjoy clean water and clean air. Everyone wants soil that you can plant things in, and everything doesn't die and wilt because the soil's just deteriorated and contaminated.

1.4.31 Jamesa Johnson Greer - Michigan Environmental Justice Coalition

Jamesa Johnson Greer offered her support for the comments that were already made by Detroit People's Platform and Flint Rising. The work that they're doing around water and air quality is imperative to the survival of so many vulnerable communities throughout our state. So throughout the state of Michigan, black, indigenous, and people of color are dealing with multi-variant vulnerability, and they should be reducing the impact of environmental justice communities immediately and building a regulatory foundation to help reach our targets.

She's deeply concerned by the notable omission of the discussion from folks about NEPA, specifically Fast 41, and the very notion that while EJ communities are fighting for our survival in this climate crisis, a pathway is being created to fast-track these large projects. That's severely problematic. This will limit considerations of alternatives that may be more responsive to the climate crisis. That will likely limit public input, public accountability, government

accountability, and public access to the courts on the country's largest infrastructure projects where it's necessary to be fully considering community and environmental and social impacts. These limitations on meaningful public participation and accountability and decision-making will directly impair what are likely already disadvantaged communities. The priority should not be profits but should be reducing the impact on environmental justice communities immediately and building a foundation to reach our climate targets through equitable solutions.

1.4.32 Susan Goldsborough - Families for Clean Air (San Francisco, California)

Susan Goldsborough commented residential woodsmoke is a problem in many, many communities across the country. It comprises 38 percent of the particulate pollution, for instance, here in the Bay Area. It's a multi-component gas containing carbon dioxide, nitrous oxide, and methane, all greenhouse gases. And many air toxins, such as benzene, dioxin, formaldehyde, PAHs. Cumulative health impacts from exposure to woodsmoke include heart disease, cancers, emphysema, asthma, Parkinson's Disease, diabetes, autoimmune disorders, and cognitive damage. The particulates inhaled travel from the lungs throughout the body and cause inflammation. Even a pregnant woman's fetus is affected. As such, woodsmoke is both a health hazard and a significant climate change forcer. Since most woodsmoke exposure occurs at home, it's an ongoing environmental and public health disaster.

Both rural and urban folks need access to clean heat. Access to clean electricity is the first step. Residential and commercial woodsmoke cumulative impact on public health and climate change could be reduced by two actions. First, if woodsmoke were included in the EPA inventory of greenhouse gas emissions, the severity of the woodsmoke problem across the country would be recognized and included in climate change projects and programs. Wood burns both dirtier than coal, and, in the U.S., residential wood burning accounts for 45 percent of methane emissions from stationary sources. So there is absolutely no reason not to count woodsmoke emissions in the inventory of greenhouse gases.

Finally, the EPA might reexamine its support and promotion of wood burning as an acceptable method of heating. It's time to protect vulnerable and marginalized communities. We need equal access to clean air and to reduce the climate change impact of wood burning. Do not support biomass as an answer to energy needs.

1.4.33 Sherri White-Williamson - Environmental Justice Community Action Network (North Clinton, North Carolina)

Sherri White-Williamson stated that places like where she lives seem to have become a footnote in the broader discussion about inequities in environmental injustices. Clinton is located in Sampson County, one of the 40 most distressed in the state. Sampson County is number two in hog production in the United States with the Smithfield Processing Plant there. It is one of the top three in poultry production in the state, an industry that has no state environmental regulation.

In addition, it houses the largest landfill in the state, located on the edge of a historical African American community, receiving waste from cities 100 miles and more away. Finally, Enviva, a wood pellet manufacturer with five facilities in the state is clearcutting trees in our communities

to provide wood pellets to Europe while our community suffers from the devastation of deforestation. Ironically, Prime Minister Boris Johnson said, during the COP26 negotiations, referring to forests, these great, teeming ecosystems, these cathedrals of nature are the lungs of our planet. Forests support communities' livelihoods and the food supply and absorb the carbon people pump into the atmosphere. They are essential to our very survival. She is advocating on behalf of impacted communities that are predominantly low-income communities and communities of color living near CAFOs, landfills, and wood pellet processing operations.

They are asking why decision-makers are more interested in supporting a wholly owned Chinese company, Smithfield Foods, than its citizens. Smithfield is now partnered with Dominion Energy to produce biogas and positioned to receive subsidies from the USDA to promote what they are calling renewable natural gas. While refusing to install the best available control technology to promote the health of surrounding communities, what is happening in Southeastern and Northeastern North Carolina are no less than human rights violations. Their community members are experiencing the worst health outcomes and significant reductions in quality of life. She appreciates the work that this body is doing and the recommendations that they provide to the White House, however, as rural Americans, they must be able to speak for themselves.

She made the following recommendations. First, add more rural representatives to this body so that those in rural America have a seat at the table and are not just on the menu. Second, direct relevant agencies and environmental justice inter-agency councils to visit her communities, learn about the problems there, and work collaboratively to develop and implement solutions that will help to alleviate the cumulative impacts that they are experiencing.

1.4.34 Cozetta LaMore - Choices Interlinking Alliance (Texas)

Cozetta LaMore stated that her group is also a frontline survivor of environmental injustice. The property that they own, their nonprofit, has been contaminated by an injection well spill that's upstream from them. Injection wells contain wastewater from a fracking operation. Very contaminated, deadly radioactivity and several other toxic chemicals have been identified as a result of that spill. So they tried to do the right thing. They notified as many people as they could, but they didn't know a lot about environmental injustice concerns. Nothing was forthcoming. They were referred to a problem-solving committee that might be able to help, and they did work with that committee for about three years. It consisted of the community as well as state and some federal people, and there was an appearance that there was a concern, but here we are, three years later. Fortunately, there was very active evidence of contamination, and she did send written reports with visuals and so forth so anyone can see that this was very real. Sinkholes and uprooted trees destroyed houses and so forth. It was a serious spill. It seemed like it wasn't taken that seriously.

Her group thinks that right now the contaminating source is temporarily closed of their own volition, but they could open at any time. As other people have stated, there seems to be no regulation at all. The favored mantra seems to be, well, that's not our domain. Some of the members of the committee have said, even if they acknowledged that it's dangerous, it's hazardous, it's life-threatening, the guidelines are written as such that they're kind of paralyzed to act. They kind of hinted that they need some help to enforce the regulations. There have been

a couple speakers today saying that, even with their good intention, they need help because they don't know all the politics and so forth.

She suggested that, in terms of solutions, if there is a problem-solving committee in place, that priority be given to the voices of the community, people who are impacted. The officials don't have the authority because the guidelines are just so absurd that it ties their hands, that the people of the impacted communities would have a say and be given priority about what needs to be done. What are the adequate guidelines for health and safety? It's like other people said, a way to formalize listening to the voice of the people. People are dying but, yet the guidelines are written so that that doesn't matter. Please, give some heed and attention to the voices of people who are being harmed.

1.4.35 Alice Sung - Greenbank Associates (California)

Alice Sung stated that she has several requests that will be followed up and put in writing. First, in the implementation of Justice40, it would be great, especially listening to comments today, that WHEJAC immediately tries to post as much as they can with more information and give public briefs and drafts of your work such that they can create a mechanism for comment through email or other accessible means.

The second would be that WHEJAC and CEQ combined with other inter-agencies need to pay attention to the other 60 percent of Justice40. That might be investments to ensure that they do not cause further harm to environmental justice impacted communities. In the development of the EJ and economic screening tools, she suggests that they not only focus on screening for the Justice40 investments but that you pay attention to the other 60 percent, such that they do not harm existing communities. She referred them to page 59 of their final report released on May 21st that they make sure that those other 60 percent will not benefit a community that is not included and screened out of the other 60 percent of investments, including carbon capture and storage, direct or capture, R&D. They've listed 17.

To the end of the 17, she would add net-zero carbon and net-zero energy. Carbon counting needs to go absolute zero. Nineteen would be overlooking the screening of the other 60 percent to make sure that those loopholes are closed and that they are not investing in things that cause further harm to EJ communities. Lastly, the addition of examples of projects that may benefit a community also should include the orderly prioritization of immediate prevention of natural gas expansion and new construction and the equitable existing building decarbonization processes. Utility rates should be looked at to focus on just energy burdens and net energy metering rates that don't actually cause more harm to ratepayers and prevent energy democracy.

1.4.36 Linda Reinstein - Asbestos Disease Awareness Organization (California)

Linda Reinstein stated that, for the past 17 years, ADAO has been dedicated to preventing asbestos exposure and eliminating all asbestos-caused diseases. During this time, it is abundantly clear of all the environmental injustices that asbestos has caused. She is thankful to have this opportunity to speak for many who have been silenced, but also to offer resources to the Council as they work forward.

Prevention and policy are essential to mitigate and eliminate environmental injustices. Every American deserves to have their air, water, and soil, and their living spaces free from toxic asbestos, but they're not. The science is abundantly clear; there's no safe level of asbestos yet imports and use continue. Asbestos is a known carcinogen and is responsible for the largest manmade disasters in our country. She watched her husband slowly die, and she's not alone. Forty thousand Americans do the same each year when their spouses and loved ones die from preventable asbestos-caused diseases, especially those living near fence line communities.

Black, brown, indigenous, lower wealth communities are disproportionately impacted by the use and the legacy asbestos remained in buildings. It is cheaper to do it wrong and pay a fine than to be held accountable and follow the government regulations. While climate change disasters are increasing, so do exposures. The EPA failed to ban asbestos in 1991, and the proof of this remains in our homes, schools, and workplaces, and even on consumer shelves. It is time that people look forward to the White House taking an active role in mitigating and eliminating environmental injustice, especially from asbestos.

She'd like to offer their resources going forward. Educational resources should be available to every community throughout the nation. The color of your skin or the money in your wallet shouldn't determine the ability to become educated and protect yourself from asbestos. She looks forward to working with the Council in the future and also having the White House urge the EPA and Congress to stop the imports and study the legacy asbestos in homes, schools, and buildings, and work towards a toxic-free future that ends environmental injustices, suffering, and death.

1.4.37 Richard Holman - Westside Coalition (Salt Lake City, UT)

Richard Holman asked the Commission to note, how effective can state and federal organizations chartered with protecting our environment be when no fewer than 85 organizations are speaking right now that are defending their communities against industrial and other polluters? Something is wrong when it takes this many private individuals to defend the environment.

Our west side of Salt Lake City continues to be ground zero for damaging environmental outcomes. What has been recently proposed as part of the Utah Inland Port is a trans-modal facility that's looking to add additional hazards to the lives of west side residents. The west side is already home to many environmental impacts such as three converging interstate highways soon to be clogged with truck traffic headed for the proposed Utah Inland Port. Legacy Parkway, previously closed to truck traffic, is now open for trucks 24/7 based on the expected deluge of port traffic. A Union Pacific 24/7 intermodal railyard already in use, uses incredibly polluting pusher engines. An expanded international airport, a municipal water treatment facility, an old city landfill in need of remediation, three oil refineries, and a large rock and gravel quarry fouls the air with dust and debris every day. This is what the people live with. While not directly an air quality issue, there's also the aerial spraying of pesticides adjacent to our west side neighborhoods and a dozen schools.

All of this is not new, but do we have to make it worse by adding a new Inland Port Rail facility let alone the Inland Port itself, which is not needed and has never been needed, but is an

economic boom to people who are pushing it. This will serve to decimate what little air quality is left. They are non-attainment zones for the most part. When the port folks say that it will reduce air pollution, he says prove it and show the need for the facility and the expenditure of \$12 million at a time when there's absolutely no indicator of economic need, either now or in the foreseeable future. This is a money-making gambit benefitting a few at the cost born by the many, and particularly our west side friends and neighbors. The proponents of the port and railyard are centralizing the monetary gains and socializing the costs. He asks the EPA to look closely at the Department of Environmental Quality and the Division of Air Quality and verify that they are acting in the best interest of citizens and not the economic benefit of those in the legislature and the private sector.

1.4.38 Ryke Longest (North Carolina)

Ryke Longest stated that he's been practicing environmental law in the state of North Carolina for 30 years, and what he's seen is that, in the last four years, they've had beginnings of some very good talk, but little action to address environmental injustice within the state of North Carolina. Putting new digestors on 30- to 40-year-old hog farms without upgrading the waste treatment technologies on those farms and calling that a climate benefit is an incredible environmental injustice as was already spoken about with some of our previous speakers. He added that many inactive hazardous waste sites in North Carolina, many of them other RCRA correction action, are going nowhere. There are over 1900 inactive hazard sites on the list in North Carolina.

He asked that, when this Commission is looking into things that can be done, looking at the enforcement decisions that were made in past years would be exceptionally helpful. In one particular case of which I'm aware, a landfill that was a series of dumps that were put together by the Aluminum Company of America (or Alcoa), in the town of Bayden, North Carolina, was certified by the state of North Carolina as not transmitting to groundwater even though, and this was back in 1999, as a result, this was referred to the RCRA list for cleanup evaluation by the state, and there still has not been cleaned up all these years later. They attempted to get a superfund petition in to have EPA take the lead on this site, and, once the superfund petition was evaluated, the state asked for it to be put back under RCRA. Here we are five years after that, and still no cleanup is in sight.

These deferral decisions were supposed to, per the 1995 policy, expedite the cleanup of sites. Instead, what they've allowed to happen is for state regulators to serve as a shield between EPA and residents living next to hazardous waste dumps. The community of West Bayden is an EJ hotspot, and it needs help. There are lots of examples of hazardous waste sites around North Carolina. They would invite them to help the local officials to understand their responsibilities by looking back at some of the decisions that they made in the past back in the 1990s on many of these sites.

1.4.39 Katie Pappas - Stop the Polluting Port Coalition (Salt Lake City, Utah)

Katie Pappas stated that the Salt Lake Valley will be unlivable if the Utah Inland Port is brought to fruition and will most affect underserved communities. In the mid-19th century, her pioneer ancestors settled in what is now considered the west side of Salt Lake City. They went

on to farm a parcel of land near the Jordan River. She acknowledged this new Mormon settlement displaced indigenous people in the area, including the Paiute, Goshute, and Ute tribes. As the city grew, parts of the west side were transformed into industrial and manufacturing areas. At one point, the number of railroad tracks per capita was the highest in the United States. Residential development took off in the 1940s following World War II, when small affordable homes were built. Today, Salt Lake's west side, including Rose Park, Poplar Grove, Glendale, and West Point house the most ethnically diverse population in the state.

Unfortunately, the area is also home to landfills, refineries, and most major freeways and rail lines in the valley. West side residents have endured the negative effects of all of these. In 2018, the Utah legislature created the Utah Inland Port, a massive new industrial and warehouse development project just to the north and west of these neighborhoods. The 24.4 square mile port would increase the movement of cargo in and out of Utah, drastically increasing diesel truck and rail traffic, all at taxpayer expense. At least one-fourth of the area is considered environmentally sensitive with bird and wildlife habitat and wetlands of the Great Salt Lake. The project will result in increased air, light, noise, and groundwater pollution, environmental degradation, and even more spraying of pesticides in the area. The Salt Lake City Mosquito Abatement District has asked for a 75 percent increase in their property tax revenue to increase spraying in the area.

Salt Lake City already has some of the worst air pollution on the planet, leading to shortened life expectancy and a long list of documented health impacts. The area is frequently out of attainment with EPA air quality standards. They have higher than average rates of asthma and autism spectrum disorders. The anticipated increased traffic has already led to road expansion plans in local neighborhoods. New rail lines and a trans-loading facility are planned, the majority of city residents are opposed to this and yet, it moves forward without public accountability or any environmental or health studies. She urges the Council to support their diverse neighborhoods, protect them from future harm, and require environmental health studies when neighborhoods are impacted by new development.

1.4.40 Miguel Juarez - Val Verde Neighborhood Association (El Paso, Texas)

Miguel Juarez stated that he wrote his dissertation on how they built I-10 in the late 1960s, which displaced El Paso's black and brown neighborhoods. TxDOT is engaging in the current study to widen the highway and build a deck park. Texas is one of seven national environmental policy act NEPA, quote/unquote, assignment states, which means that the Federal Highway Works Administration has sent all their environmental review civil rights violations to the Texas Department of Transportation, or TxDOT. We need your support to change this. The Downtown 10 project is equivalent to the fox guarding the henhouse. The state is building out a highway system to accommodate future truck traffic.

The project proposes widening a six-mile stretch of Interstate 10 to the urban core, adding frontage roads, bringing high-speed traffic closer to historic minority and low-income neighborhoods. It will increase emissions, heat, noise, vibrations, and concurrent impact in our neighborhoods. TxDOT delivered itself a classification letter that determined environmental assessment, EA, not a full environmental impact statement that was sufficient to evaluate this project. How is it possible that an EA is sufficient to assess the many and complex interactions

between the freeway and adjacent residents? These are federal interstates built with federal money. The FHWA should be clearing the environmental reviews required by federal law, not state law.

Michel Lee's and Stephen Buckley's comments were spot on. The consultation process is seriously flawed. At yesterday's Section 106 consulting party meeting, he recommended that they contact WHEJAC on this project, but the consultants said they weren't required to do so to evaluate environmental and historical impacts, especially when it proposes to induce heavy truck traffic through cities like El Paso, Austin, and Houston, where there are so many highways already that expressed a legacy of environmental racism. There are also numerous overburdened neighborhoods in South Central El Paso, Texas which need intervention. He suggests they organize a virtual conference with everyone here so that all can learn from each other. Lastly, he suggests that another Southwest representative is on the Advisory Council. Thank you.

1.4.41 Julian Gonzalez - Earthjustice (Washington, D.C.)

Julian Gonzalez stated he wanted to talk a little bit about two related issues: infrastructure legislation and the lead and copper rule. He will submit more detailed written versions of these remarks. Regarding infrastructure and the infrastructure bill, this WHEJAC meeting is being held on the heels of the passage of the Bipartisan Infrastructure Deal, or BID for short, which contains unprecedented federal investment in water infrastructure. Earthjustice and their partners urge WHEJAC to request that all relevant agencies commit to prioritizing disadvantaged communities' receipt of funds from the BID. Agencies like EPA have the authority to target these funds and shouldn't hesitate to use them. Accordingly, here are a few particular suggestions for WHEJAC.

Firstly, in parts of the bill, including the funds for EPA's drinking water and clean water SRS and the parts about lead service line replacement funding. The bill calls for 49 percent of the funding to be provided as grants. The way the text is written in the bill, that 49 percent is clearly intended to go to disadvantaged communities and not wealthy ones, and the agencies must distribute the funds accordingly. Second, for many other categories of water infrastructure appropriations, the bid doesn't explicitly require the prioritization of disadvantaged communities. WHEJAC must work with all the folks on this call to pressure the administration, CEQ, the Domestic Policy Council, and EPA to think about incentives to ensure that these funds, many of which are distributed by the states ultimately more than EPA, to benefit disadvantaged communities.

Regarding the lead service line replacement and the lead and copper rule, they want to second WHEJAC's recommendation from their earlier report and encourage a couple of other particular specific changes to the lead and copper rule. Number one, mandating proactive full replacement of lines in no more than ten years for all water systems at no cost to the consumer. Number two, requiring corrective action for all water systems at no higher than five parts per billion with rigorous monitoring. And, number three, require comprehensive communication about dangers and exposure to lead in water to community members impacted by it in an honest and upright way by EPA, which the last lead and copper rule did not do or didn't come close to doing.

1.4.42 Jordan Barton - Our Children's Trust (Oregon)

Jordan Barton requested that WHEJAC advocate for the recognition of children’s fundamental rights to a safe climate system and advise CEQ and IAC to align their policies with protecting the rights of children, including those from communities of color, low-income communities, and indigenous communities. Without the recognition of a fundamental right to a safe climate, environmental injustices will persist as the climate crisis worsens. One pathway to a binding, durable solution to the climate crises and environmental injustice is by securing this right through a court order in *Juliana v. United States*. In 2015, this landmark constitutional climate lawsuit was brought by 21 young Americans, including 11 black, brown, and indigenous youth against the executive branch of the government for their affirmative actions in causing climate change.

They assert that the U.S. National Energy System, which is dominated by the use of fossil fuels, is violating their constitutional rights to life, liberty, property, equal protection of the law, and access to central public trust resources. Her group requests that WHEJAC support the *Juliana* youth plaintiffs and children’s rights. Climate change is causing a public health emergency that is adversely impacting the physical and mental health of American children through extreme weather events, decreased air quality, altered infectious disease patterns, and food and water insecurity. Children are uniquely vulnerable to human-caused climate change and pollution because of their developing bodies, higher exposure to air, food, and water per unit body weight, dependence on caregivers, and longevity on the planet. WHEJAC should urge CEQ and IAC to use the best available science and recognize the target of reducing total U.S. emissions by close to 100 percent by 2050 and an emissions trajectory consistent with returning atmosphere CO₂ to below 350 parts per million by 2100. Current increased average temperatures of one degree Celsius and greater are already dangerous.

Alignment with temperature targets of 1.5 degrees Celsius is exponentially more catastrophic for children and future generations and should not be used to guide U.S. policy. They recommend that a stated goal that ensures children’s fundamental rights to a safe climate system be reflected in all future reports and programs led by CEQ and IAC. One *Juliana* plaintiff, Aji Piper, from Washington State testified at the first U.S. House Select Committee on the climate crisis that, as a black youth, he has grown up with the long-lasting consequences of discrimination from government-sanctioned segregation. As the federal government continues to exacerbate the climate crisis with its national energy system, innocent children and young people like him will inherit the legacies of unconstitutional government actions. If President Biden is committed to tackling the climate crisis, his DOJ must stop using the Trump DOJ's tactics to oppose this case going to trial and deny these human rights. They request that WHEJAC support the *Juliana* plaintiffs, advocate for children’s fundamental rights as defined by the best available science and ensure that the environmental justice strategies are protective of children.

1.4.43 Michelle Martinez - MEJC (Detroit, Michigan)

Michelle Martinez wanted to talk a little bit about the communities that are all over Michigan. I say ten people are in a church basement somewhere in Michigan fighting an absolute goliath, whether it’s the mining communities that are fighting against permitting the Eagle Mine, fracking, wells, the Enbridge-owned oil pipeline Line 5 or Line 3B in Southern Michigan that threatens the Great Lakes. We have old coal-fired power plants that are well beyond their life

cycle met with coal ash cons, a nuclear waste that is not dealt with sitting on the shores of the Great Lakes, which is 89 percent of the United States' surface freshwater.

There is oil refining located in communities that are working hard to make ends meet. They are mostly low-income communities and disproportionately in black, indigenous, and Latinx neighborhoods all over the state. Permits are simply not an effective tool for mitigating pollution and protecting the health and welfare of the people who live in and around these. They now see the greatest generation dealing with cancer, heart disease, and other impacts of living next to facilities for decades. There is hazardous waste in Michigan that comes as far away as the Mariana Islands to land on Detroit's east side, in an African American neighborhood of Detroit. It needs to be enforceable to be able to mandate mandatory emissions reductions utilizing punitive measures, including Title VI provisions so that people can live with dignity in our neighborhoods. The screening tool that is proposed and the EJ scorecard need to be open to ensure that it is not just a performative action, but that it actually leads to the identification of those areas that are most impacted.

Regulatory actions would reduce pollution and ensure that those most impacted are protected, while Justice40 money should be deployed in those communities to repair and bring our communities into wholeness. They also know that while NEPA is being gutted, the fast-tracking of these permits will layer a new generation of pipelines of combined CCES and false solutions that are not going to help our communities. Just now, there was another asphalt permit that a community member was concerned about that because the bipartisan infrastructure law is going to negatively impact her community. So she asks that the CEQ and the White House do everything in its power to ensure that the agencies are acting with the full force of the law to be able to protect communities and to be able to invest and find a way out of this situation.

1.4.44 Deena Tumeh - Earthjustice (Washington, D.C.)

Deena Tumeh stated that she is there to support the request that WHEJAC is hearing today for strong advocacy to the White House on chemical disaster prevention. First, it is important that WHEJACs climate and economic justice screening tools screen for facilities regulated under EPA's Clean Air Act Risk Management Program, also known as RMP or the Chemical Disaster Prevention Rule. The Biden/Harris administration charged WHEJAC with creating this tool to identify communities that face disproportionate and cumulative impacts of climate change. In order for WHEJAC to fulfill this charge, the screening tool must screen for communities with one or more facilities regulated under the Chemical Disaster Rule, and proximity to those facilities could be an indicator that a community is vulnerable and overburdened.

EPA has long recognized that these facilities and the Chemical Disaster Rule have a disproportionate effect on communities of color and low-income people. The more facilities there are in a community, the greater the threat and harm from chemical disasters. Communities living near at least 3800 RMP facilities are at greater risk of double disasters, which are chemical disasters triggered by climate events. Climate change has caused more frequent and more extreme natural disasters, which trigger chemical disasters because facilities are not currently required to prepare for climate events.

Second, WHEJAC should encourage the White House and EPA to issue a stronger Chemical

Disaster Prevention Rule. The rule should include the following five components. First, prevention and hazard reduction efforts. California and Contra Costa County specifically have shown the path on this. Second, climate and double disaster planning and mitigation requirements should be included. Third, emergency response preparation and incident management are critical. Fourth, stronger accountability and compliance requirements are needed. And fifth, the rule should be expanded to cover more chemicals at lower thresholds and more facilities.

The time for this advocacy is now. EPA is currently drafting a proposed rule that it plans to issue next year as part of EPA's review of the RMP under President Biden's Executive Order 13990. A letter from WHEJAC to the White House and EPA is needed ideally by early 2022. This letter would fulfill WHEJAC's charge to increase the federal government's efforts to address current and historic environmental justice. It would also guide the White House and EPA in implementing Executive Order 13990. The need for a stronger rule is urgent. In the last decade, a chemical disaster has occurred on average every two and half days, and the risk is not declining. In fact, it's increasing because of climate change.

1.4.45 Margaret Tarrant - Alaska Community Action to Toxics (Anchorage, Alaska)

Margaret Tarrant stated that she has concerns from their elders and youth from a conference that recently. The Alaska Natives are concerned about sick and dying fish. They're washing ashore. Their way of life is increasingly threatened. The sea is their farm. The Arctic is their hemispheric sink and whatever is spilled anywhere makes it in our waters within a week. They are inundated with military pollutants from bases that were abandoned without any effort to clean up the mess. Their people have been and are being exposed without our consent.

Communities across Alaska are living under third-world poverty conditions. Trawling fisheries and bycatch are decimating fish populations. Waste dumping by tourist ships in our waters is causing extreme illness to our seas, our subsistent foods, and ourselves. They implore President Biden to make good on his promise that 40 percent of federal investments will go to climate and clean energy to disadvantaged communities. An elder, Fred Philip, says They do not have wells to get drinking water. Their water comes from the lake. For the most part, they collect rainwater to drink and bathe. They are concerned about pollutants from the other side of the planet contaminating rainwater, and they would like to get the rainwater tested. Lastly, they believe that our government is indebted to us for helping us to get aid, and the Biden Administrated needs to take real action against climate change.

Here in Alaska, they're facing climate change at a faster rate than the rest of the world in the Arctic. The ice is melting three times faster, and the climate is warming. They have a complete die-off of ocelots on St. Lawrence Island, and the villagers and community are concerned that is just the canary in the coal mine, so to speak. They want to make sure that tribes are at the table from the very beginning, not only consulted but at the very beginning from the inception of any plans or ideas that are going to occur in and around their native lands.

1.4.46 Maya Nye - Coming Clean (West Virginia)

Maya Nye stated that her organization represents over a hundred and fifty organizations

working to reform the chemical and fossil fuel industries so that they're no longer a source of harm. They are a strategic partner of the Environmental Justice Help Alliance for Chemical Policy Reform whose affiliates live on the fence line of highly hazardous chemical facilities regulated under EPA's Risk Management Program, or RMP. These facilities are disproportionately located in communities of color and low-income communities. They request that WHEJAC include proximity to these high-risk RMP facilities as an indicator in the climate and economic justice screening tool as mentioned previously. EPA is currently considering restoring and strengthening RMP amendments that were put in place under the Obama/Biden Administration. As such, they're also seeking that the White House prioritize tracking of EPA's RMP rulemaking process to ensure that it's the strongest rule possible for the reasons mentioned previously by Earthjustice.

The protections are ones that fenceline communities, like my whole community, have been seeking for decades. She grew up in a white working-class fenceline community across the river from Institute, West Virginia, which is a black fenceline community with a historically black land grant university. A high-risk chemical facility complex was built by the U.S. government in the 1940s to support the war effort. Since then, they experienced a myriad of explosions and releases of highly hazardous chemicals. The effects from these disasters are cumulative, and they are further compounded for those experiencing systematic racism. Today, this facility is one of the top 25 producers of cancer risk from air toxics in the country as a result of ethylene oxide emissions, and it's one of the highest emitters of greenhouse gases in the county. In fact, the chemical sector was the greatest emitter of greenhouse gases in our county in 2020. Not only do these facilities contribute to climate change, but they're also vulnerable as a result of it. All RMP facilities in her area are located downstream of a dam, which is currently inadequate to protect against extreme storms.

According to the Army Corps of Engineers, this dam is at risk of breach, and, if that happened, it would cause catastrophic flooding to these chemical facilities putting over 100,000 lives at risk and resulting in property damages of over \$20 billion. To reiterate, they ask that the WHEJAC include proximity to high-risk RMP facilities as an indicator in the climate and economic justice screening tool, and to ensure that the White House prioritizes tracking EPA's RMP rule-making process to ensure that it's the strongest rule possible. They want to thank the administration for its commitment to environmental justice issues and deeply thank the members of WHEJAC for all their hard work under unprecedented pressure to help them get it right.

1.4.47 Gregory Norris - ACES 4 Youth (Illinois)

Gregory Norris recalled when the technology came out and created a digital divide, other countries advanced off of the technologies that came from this country, and that happened only because of the systemic racism that exists. In the state of Illinois, the government just passed a bill called the Climate Equitable Jobs Act, CEJA. In that bill, there is a lot of equity, but, because it's in the bill, that doesn't mean that it gets to the people that it was intended for. That's going to be up to the people. That's going to be up for the real hearts to say that we want this to happen.

One of the things that they were not able to do was to shut down are Prairie State Wind, the dirtiest polluters in the state of Illinois. The second thing is a carbon tire plant in Carbondale,

Illinois, where people are still dying from cancer. Then there's a Viola Incinerator Plant in East St. Louis with all this peat grass. You can't grow a garden in your yard. When it burns items, sparks come out from the smokestacks as you walk down the streets.

He suggested that, when you look at the departments that the president has established -- a Health Equity Department, a Racial Equity Department, and the USDA looking at establishing a commission on equity as it relates to food and food deserts -- he would like to see this department connect with those departments and validate it by giving the people a report. If all these things are happening that they want to do with addressing climate change, two things would happen. We would see an improvement in our Earth in its totality as it relates to water and the air we breathe and the food we eat. But there's another thing that would be seen, there would be a lot of the health disparities going down, and that would be a great indicator that these things are in fact happening. So he would like to see this advisory group connect with those other departments and produce reports and not just demonstrate, but show us those things are happenings by the numbers. By releasing reports that say that health disparities such as asthma, obesity, and the death rate are going down, then the quality of life is improving.

1.4.48 LesLee Jackson (Minneapolis, Minnesota)

LesLee Jackson spoke about her community's health. She is a black indigenous woman of Native Minnesota where once the air was clean and now it's polluted by a garbage incinerator owned by Hennepin County that was placed in the heart of the city of Minneapolis affecting the residents of Minneapolis. Many of the residents' health is being affected with increasing numbers of asthma and cancer. The Minnesota Pollution Control Agency is not regulating the plastic that is being burned at seven incinerators across Minnesota. The state representatives have placed a ban on the residents and the city, preventing us from banning plastics in our city, which is violating our human right to life. The EPA has not questioned why the elements released from plastic burning are not on the monitor report that is sent to them and released by them.

The toxins from burning plastics, including mercury, dioxin, furan, and BCPs, flow across the state, and no one seems to care, only that the money is made off the cost of human lives. They have now created an air of plastic that the seven generations will have to deal with. Although they have placed fees on plastic bags in Minneapolis, the increase of plastic bags and bottles continues to flourish in the city. The state representatives have failed to provide us with clean air, giving the manufacturers the right to kill us softly. Instead of charging the manufacturers heavy pollution fees, they all suffer. She is requesting that the residents of Minneapolis have clean air, hold the Minnesota Pollution Control Agency accountable for failing to provide the proper monitors to regulate what is being burned, and mandate that all cities are no longer permitted to burn plastics where residents reside. They're killing us softly.

1.4.49 John Mueller - Supporter, Fluoride Action Network, American Environmental Health Studies Project (Tulsa, Oklahoma)

John Mueller wanted to reference the EPA's draft fiscal year 2022 to 2026 strategic plan because there are very real opportunities for this new strategic plan to facilitate resolving the EPA's and the CDC's conundrum of how to end artificial water fluoridation in light of the new

evidence showing an unacceptable risk of disproportionate harm to blacks and other vulnerable subgroups, especially brain damage in the unborn fetus in a mother exposed to fluoridated water, in bottle-fed infants fed formula made with fluoridated water, and in young children. Harm to the developing brain from fluoride is not unlike the harm from lead exposure from lead service lines. The big difference is that we are deliberately adding the regulated contaminant to fluoride to the water with other polluting contaminants, like arsenic, instead of trying to remove them to protect public health. There is fluoride in toothpaste; we don't need it in our water.

He has submitted a comment about the strategic plan, which points out the need for language to include the application of the precautionary principle anywhere in the strategic plan where contaminant threshold values for safe human exposure are being addressed for regulatory rulemaking. Wikipedia says in part about the precautionary principle, "The principle has become an underlying rationale for a large and increasing number of international treaties and declarations in the fields of sustainable development, environmental protection, health, trade, and food safety." He is recommending that WHEJAC, through the Inter-Agency Council, the IAC, initiate collaboration among the CDC and EPA to review and give appropriate weight to the new scientific evidence that has been presented in the TSCA lawsuit now pending in federal district court for the Northern District of California, the lawsuit in which EPA is being sued to ban fluoridation. He also submitted additional material in his written comments.

1.4.50 Brandi Crawford-Johnson (Kalamazoo, Michigan)

Brandi Crawford-Johnson states that it is important for local, state, and federal governments to work together on environmental justice issues, but that is not happening in Kalamazoo, Michigan. There is a toxic paper mill and wastewater plant currently expanding, and their community is terrified. Even though we have filed a class-action lawsuit against the mill, and she has filed civil rights complaints against the city, EGLE, and the county Brownfields, there is still no action to protect residents. She has worked with doctors in ATSDR to provide reports to MDHHS to do an air quality investigation to the exposures that are making her and her frontline community so sick and stressed. She is still sending MDHHS documents for review weekly and begging them to hurry. She is hopeful that this report will help achieve justice and help to relocate residents away from these poisons ASAP, but it's hard to trust them. Hiding public health risk information from the public is inhumane and dangerous. They must inform the public of their risk and EJ scores right now.

Graphic Packaging International, the paper mill expanding on their brownfields with EPA and EGLE grant money, is the most toxic polluter in the region and the top 60 in the United States. They are increasing their greenhouse emissions by 200 percent. GPI doesn't clean up any of their contamination and uses zero pollution prevention. Their criminal tactics spills are ongoing. There has been zero enforcement or fines given by EGLE. Brownfields are meant to be cleaned up. They are not meant to be used for expansions to further pollute frontline communities. There wasn't even a health impact assessment done despite hundreds of air complaints over a ten-year period. EGLE gave them a permit to expand despite residents begging for their lives at the permit hearings. EGLE continues to discriminate against disadvantaged communities as it relates to enforcement and permitting all over Michigan. Pollution is poison, but these agency officials do not care people are sick and dying. The Biden Administration and CEQ need to dismantle EGLE and some of the EPA. Start over with officials who actually care if people get sick and

die.

She will continue to fight for all humans and the environment. She will use every tool in her bag until they achieve environmental and civil rights justice. Frontline communities being exposed to poison should be treated as a public health emergency. The CEQ needs to provide action now, not later. Every person that dies because polluters and profits are being put over human lives is murder. Most of these communities are superfund sites but have not had the designation. The EPA can provide relocation assistance to superfund sites. This is an action that can take place now. Let's get these humans out of harm's way and show them the government does care. Our world is on fire and our families are being poisoned daily. They are all here together to fight and protect our future generations from harm for a reason. She'd like to also thank Dr. Kyle White for recently offering to help bring more awareness to the severe environmental injustice happening in Kalamazoo. They can do so much more to help people if they all work together for justice.

1.4.51 Stephanie Herron - EJHA (Pennsylvania)

Stephanie Herron expressed her deep gratitude to every member of the WHEJAC for their immense commitment to advancing environmental justice, including by serving as members of this critically important council and for staying tonight. EJHA is a national network of primarily grassroots EJ organizations that have been working to prevent and deal with chemical disasters in their communities for many, many years, some even before she was born. These overburdened EJHA affiliate communities are bombarded every day with the cumulative impacts of many pollution sources, including hazardous facilities regulated under EPA's Risk Management Plan Program, which is a section of the Clean Air Act. She's joining other previous commentators in requesting that the WHEJAC include proximity to these high-risk RMP facilities as an indicator in the climate tool. They're also asking the WHEJAC to advise the White House on how to prioritize, track, and support EPA's current RMP rulemaking and to ensure that the final rule focuses on prevention and fully protecting workers and fence-line communities.

As has been noted by other speakers today, they know that people of color are not clustered together in certain areas by accident, and neither are polluting facilities. This legacy of environmental racism certainly includes polluting power plants, highways, and transportation depots, but it's not limited to those sectors. The Life at the Fence Line Report from 2018 showed that residents in areas closest to RMP facilities are disproportionately black and Latino. A July 2021 report titled "Preventing Double Disasters" showed yet again that these communities also tend to be located in areas that are at increased and disproportionate climate risk, which we've seen in Hurricane Harvey, Hurricane Laura, and so many others. In September, our partners at Coming Clean issued a mini report detailing three of the many known and probably more unknown harmful chemical releases at facilities in Louisiana this summer in the wake of Hurricane Ida. She will submit all those reports with her written comment.

Chemical plants are major drivers of climate change and major sources of harm to EJ communities. Double disasters occur when climate-fueled extreme weather incidents combine with the lax requirement for facilities to prevent and prepare for disasters. They need the administration, including the White House, CEQ, EPA, and Inter-Agency Council, to take a

holistic view of how to address climate change and environmental injustice, and not focus only on the power and transportation sector. The RMP rulemaking is a great place to start that would have a real impact on the communities that they work with. Nearby communities and workers inside facilities are in desperate need of an RMP rule that addresses the actual risks they face and requires facilities to take action to prevent disasters that kill, injure, or slowly poison them. EJHA and their partners are prepared to fully use our advocacy capacity to support this WHEJAC and this administration in any way necessary to make this happen. They're counting on the Biden/Harris Administration to deliver on the considerable promises they made to EJ communities before and since the election. They're calling on them to do what the reality and the moment demand and they're asking the WHEJAC to join us in that call.

1.4.52 Jan Budar - Nuclear Energy Information Service (Chicago, Illinois)

Jan Budar asked what is an environmental justice community? According to Google, the term describes situations where multiple factors, including both environmental and socio-economic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities. It's important to understand that environmental justice communities live near all aspects of the U.S. fission venture from the Manhattan Project through to today's upgrade of our nuclear arsenal. This includes communities near mining, milling, processing for the gas UF₆, fuel fabrication, and experimental activities for fuel fabrication.

Communities and U.S. military personnel, victimized by so-called depleted uranium, which is obfuscating jargon for U₂₃₈, a non-fissionable isotope that steadily releases ionizing radiation in the form of alpha, beta, and gamma rays and forms hot particles in ground dust and in the air are further exposed to Uranium 238 in tank bodies and ordinance exploded near them in ground battles. Among fissioning activities are included merchant, military, and experimental reactors, which are used to produce medical isotopes. Refueling activity at reactors requires about 1,000 contractors from all over the nation. The Draconian rules that resulted were, well, Draconian.

EJ communities victimized by the U.S. fission venture also involved waste installations, including waste from the military explosions dating back to World War II in both the U.S. and the former U.S.S.R., and experimental reactors. Merchant electric power plants exploit fission to produce heat. This radioactive waste includes military low-level nuclear waste greater than class C waste - the gloves, booties, hazmat suits, debris, irradiated metals from the discarded reactor vessel when merchant plants close, and high-level radioactive waste, such as spent radioactive fuel. For an understanding of the evacuation zones for these reactors in case of an accident, refer to Chernobyl and Fukushima disasters. Yet, there are plans for new projects and so-called small (they aren't small), modular nuclear reactors, but their emergency zones have been reduced to the area occupied by the reactor itself, if they are ever built, on the theory that an accident is a non-credible event. She's submitting an annotated paper to WHEJAC.

1.4.53 Margaret Paloma Pavel - Earth House Inc. (Oakland, California)

Margaret Paloma Pavel stated that she is the editor of a called *Breakthrough Communities: Sustainability and Justice and the Next American Metropolis*, of which some of the speakers today and their good work are featured, including Dr. Robert Bullard and Peggy Shepard of WE ACT. She's also editor of a more recent volume, *Climate Justice: Groundbreaking Stories for*

Frontline Communities in California. She mentioned this because, in both of these books and in our work over the last 30 years, they've really been focused on how we move from a place of saying no.

The history of genocide, the history of ecocide, the killing of the original peoples of this land, and then the transatlantic slave trade which followed are things that we must say no to. They are hoping to move towards what it is that's possible. How do we begin reimagining and building the world that we actually want to live in? Their communities have been shrunken in our possibilities by having to respond to being created into sacrifice zones so that the real potential, the genius, the imagination, the creativity of what's needed to rebuild our social compact and to be educated for a future in a different world that they all want and long for hasn't begun to be tapped.

She's there to speak on behalf of the reinvestment, particularly, not only in a new generative economy but in the education that's needed for that not only in the technical colleges and universities and research areas but in K through 12 and the young people that are coming on board. They are leading us, as the representative from *Juliana versus The U.S. Government* embodied. So they want to think about the interruption of the supply chain that they've been so focused on right now and think about the human potential supply chain that needs to be cultivated, nurtured, and encouraged not just through STEM, but also through STEAM. They want to see that in this new economic investment of infrastructure that they also think of the artists, those who have innovation as also being sources of energy and inspiration and possibility so that they're building a world that they can say yes to and not just have to constantly be cleaning up, defending, stopping the destruction, and poisoning of our communities.

Let's rebuild in a way that supports the positive capacities of those who can be as a human Earth community with green zones and the inclusion of not only green zone jobs, but educational programs that show how the life support system works and how we're all part of a living life system and not only mechanical parts in a machine. So they need to invest in education, education, education, and economic investment for a lifetime of work, not just jobs, but careers that have the vast possibilities of the human spirit and potential built into them, a world we want to live in.

1.4.54 Diane D'Arrigo - Nuclear Information and Resource Service (Maryland)

Diane D'Arrigo stated that they support clean energy, real climate solutions, environmental justice, and they were very glad to see that the WHEJAC report that came out earlier listed nuclear as not supporting environmental justice. Nuclear power and weapons clearly violate environmental justice at every link in the fuel chain: the transportation between the sites; the mining, conversion, enrichment, and fuel fabrication; nuclear weapons production; nuclear power production; and the waste all along the way. Nuclear makes climate worse because it steals the real solutions.

There is a highly funded campaign to promote the false solution of nuclear to climate. In the Build Back Better Bill, they're looking at \$35 billion from old nuclear reactors to keep operating and, yet communities that have nuclear waste from the first mining and milling -- the Church Rock spill in 1979, the reprocessing that took place at West Valley upstream of the Seneca

Nation of Indians, Buffalo and Western New York's drinking water supply, and the Great Lakes -- still are not cleaned up. There's a good campaign to clean up the West Valley site, but it still is going to remain. There's no way to clean up reprocessing or to clean up from nuclear. Wherever nuclear facilities are located and the transportation between them threatens those communities. And who's along the transport routes? A threat they face now is for the irradiated fuel, the high-level waste from nuclear power. Over 94 percent of the radioactivity in the whole nuclear power and weapons fuel chain is targeted at two Hispanic communities in Texas and New Mexico and low-income communities all along the rail and truck and barge routes. She encourages the Committee to be strong against nuclear because of the real dangers that it poses to the whole country, especially to communities of color and low-income communities.

1.4.55 Ray Hall - Bmforflint/UNA-USA (Flint, Michigan)

Ray Hall stated that they should form a United Nations Environmental Justice here in the city. He wants to start one because all this knowledge base should be addressed before the United Nations as Biden did. A community should not be shot down just by our voices in our community but be able to speak before the world.

His main concern is what's called the "Devil's Lake" here in the city of Flint. The city of Flint is poisoning their lake. The lake has a fresh aquifer and everything for it. He's heard about the cleanup that can happen and the money that can come towards helping to clean the lake at the point of trying to sue the city of Flint for not doing it. He wanted to get on record what was going on.

He also thinks that everyone in the meeting should have the opportunity to come together, through Zoom or whatever, as a united base. Just like the United Nations is in Africa and everywhere else, they should have the same thing here where all can communicate together and bring the voices before the world about what's going on and stop feeling like they're being excluded, but they're included.

The money is there now to clean up. They need fresh water. It's been over eight years. LRCC is not working, so he had to go find his own water supply which was here all the time. Nobody told them about it. They're dying here. It's a genocide and gentrification. He will be reaching out to the other Michigan people.

1.4.56 Jane Williams - California Communities Against Toxics

Jane Williams stated that it's amazing to hear the damage that is done in our environmental justice communities and to hear the wide-ranging issues that the Council has heard today. She wanted to talk again about the chemical disaster prevention initiative that the Biden/Harris Administration is embarking on. Now, when something happens in our lives every other day, it can hardly be considered an accident. Indeed, the petrochemical infrastructure every 2.5 days has another chemical disaster, and industry and government need to work together on methods, regulations, activities, education to prevent these disasters. She's part of a national team that helps communities respond when there are chemical disasters, and it is heartbreaking to see the impacts not only to children but the long-term impacts on public health and just the impacts that people don't feel safe in their own homes anymore after a chemical disaster. The psychosocial

impacts are extreme.

They are working diligently with the Biden/Harris Administration, Administrator Regan, and the acting assistant administrator in the Office of Land and Emergency Management, and they're having WHEJAC communicate directly to the administrator and to the Office of Land and Emergency Management about the critical importance of strengthening the risk management prevention plans. The RMP program would be enormously helpful to the most vulnerable communities.

1.4.57 Will Hendrick - North Carolina Conservation Network

Will Hendrick wanted to emphasize the importance of clear guidance for recipients of federal funding to inform protections for communities of color and low income. Public health and environmental quality in these communities are often threatened by a combination of sources that are rarely, if ever, permitted simultaneously. As such, evaluating the existing and potential pollution burden in the permitting process requires consideration of cumulative impacts rather than solely the impacts of a single project. But, especially outside of the context of NEPA reviews, there's very little existing guidance to inform the assessment, especially by state permit writers, of the cumulative impacts of the multiple sources of pollution. They understand such guidance is under development by EPA's Office of Civil Rights, and they urge WHEJAC to recommend its prompt issuance.

Separate from the consideration of cumulative impacts, however, is the consideration, mitigation, and avoidance of discriminatory impacts. Advance environmental justice agencies must ensure that the cumulative effects of their actions do not disproportionately harm residents based on race, color, national origin, or income. They consistently hear, at least in North Carolina, that regulators do not know how to conduct a disparate impact analysis. They recommend the issuance of guidance to drive these critical analyses as well. Finally, because the assessment of cumulative or disparate impacts requires the collection and consideration of relevant data, they encourage the Council to recommend guidance requiring increased data collection when projects are proposed or operating in communities of color or low income. These data are necessary to make informed and science-based decisions. Some of these data could and should be collected by permittees, but not all of the relevant data is about, say emissions or discharges themselves, but also about the effects thereof including public health.

As such, they encourage WHEJAC to recommend prioritization of investment in monitoring and data analysis by state and federal agencies as well as members of the Academy that can help decision-makers better understand and respond to conditions in underserved communities. They say that justice is blind, but environmental justice cannot be achieved by agencies that are blind to the cumulative and potentially disparate impacts of their actions. He hopes that the recommendations open the eyes of those who are tasked with looking out for our vulnerable communities. He stated that he will submit a written comment as well.

The floor was passed back to Chair Moore.

1.5 Closing Remarks - Announcements & Adjourn

Chair Moore thanked everyone for their comments and passed the floor to DFO Martin who invited **Dr. Cecilia Martinez**, Senior Director for Environmental Justice to speak. She emphasized how important it is in making sure that they hear from the public and that they hear what issues are important to them so that the Council can continue to make progress both on their commitments as individuals, but also as their commitment to the president's agenda. She thanked everyone involved in making the meeting possible. **Chair Moore** also thanked everyone involved with the meeting. He noted that he has heard people saying over and over again that they're tired of testifying and nothing being done with their testimony. The WHEJAC hears you. **DFO Martin** explained the agenda for the next day's meeting. **Chair Moore** adjourned the meeting for the day.

2.0 Welcome, Introductions & Recap

On Thursday, November 18, **DFO Martin** welcomed everyone to the second day of their fourth meeting of this year. She gave a few instructions and then handed the meeting over to **Co-Chair Shepard**. She recapped the meeting yesterday and announced that over 691 people registered to attend, over 399 people actually attended, and they heard from 57 public commenters during that meeting. Almost half of the people who registered to participate did, indeed, provide comments. **DFO Martin** then asked the Council to briefly introduce themselves. She stated that they do have a quorum and turned the meeting back to Co-Chair Shepard.

2.1 WHEJAC Scorecard Workgroup Update & Discussion

Co-Chair Shepard reminded members of the public that the workgroups are in the process of drafting recommendations, so comments from the public will be accepted through December 2nd and then shared with WHEJAC members.

She recapped a few of the actions and activities that have been determined over the last few months. They have bi-monthly workgroup meetings, and they have received a number of briefings so far from the White House Council on Environmental Quality, from the Office of Management and Budget, and from the U.S. Department of Agriculture. They've also requested a number of briefings from USDA, Agriculture, HUD, the Department of Transportation, the Department of Energy, FEMA, and the Department of Interior. They have requested these briefings to learn more about their plans to implement Justice40. They've reviewed the interim implementation guidance for the Justice40 initiative, and they also realize that the final guidance will be determined and published at the end of February. They have just started developing draft recommendations for the implementation of Justice40. Back in May, they submitted recommendations for Justice40 activities, but now they're focused on how Justice40 gets implemented, and they're also focused on the scorecard.

She reminded everyone that the scorecard is a mechanism to hold the federal agencies accountable for the progress of Justice40 and for advancing environmental justice. She turned over the meeting over to Dr. Kyle Whyte, who is co-chair of the scorecard working group, and he will the discussion of the scorecard and its recommendations.

Dr. Whyte started with some of the very basic information on the charge. This comes out of Executive Order 14008, "The Environmental Justice Interagency Council will develop clear

performance metrics to ensure accountability and publish an annual public performance scorecard on its implementation, and that of the IAC to do so by consulting with the White House Environmental Justice Advisory Council. The scorecard will provide a method for evaluation and accountability to assess the progress of agencies in addressing current and historic environmental justice." He reiterated that the scorecard is about measuring, assessing, and evaluating the Agencies' performance for all environmental justice activities, including Justice40.

He explained the scorecard question and answer. "What types of indicators or data would be useful in an agency scorecard?" And it was conveyed that the input can be in the form of general ideas or specific data. It would be a continuous process, and that the WHJAC will have an ongoing opportunity in providing feedback. The presentation will be showcasing some of their very preliminary ideas. So, the feedback from members of the WHEJAC and the distinguished members of the public is critical at this point as part of informing the basis of the foundational recommendations.

He spoke about how trying to track and create metrics and accountability across all agencies is a big job. They thought a lot about starting points, and they felt it was very important to have a base strategy. They wanted to make sure that they were very clear about how they were going to draw the foundational aspects of the scorecard. What would be that solid strategy? What they came up with was that their initial ideas for a scorecard would draw on a few already established sources. The first one would be the WHEJAC recommendations from May that have a lot of critical ideas and information, a lot of which has been discussed in the White House across federal agencies. They felt that the WHEJAC recommendations were an important source for ideas about the scorecard.

The second area was that the workgroup is consulting specific experts and federal agency representatives. Part of what they're doing is trying to figure out how they take their set of general ideas for the whole of government, and how they begin to talk more specifically about how agencies that have unique programs are addressing particular areas, how this can be something that would work at a more specific agency level. The third area of an important source was the actual Justice40 interim guidance that the White House issued. And lastly, a key area is the Emerging Climate and Economic Justice Screening Tool. Concerning the screening tool, the different ideas that were shared by the WHEJAC and other input processes in terms of what the screening tool should track are incredibly valuable as a way of getting some good advice and guidance on what a scorecard should be tracking.

The starting point to present at this meeting here would be to identify just some areas of need for scoring federal agencies in terms of their contributions to EJ. So, what are those areas of need at sort of a bird's eye view that they want to try to figure out how they could be converted to scoring metrics, to evaluation metrics, to assessment metrics, to actual scoring? When they can give their main recommendations, it would be great also to have some examples. They're also looking for examples, especially ones that involve what agencies can do, to be able to illustrate at least some of the general areas of need that were identified for scoring. They just want to come back to the point that, when they're forming their recommendations, that we're doing so to ensure that the environmental justice scorecard effectively tracks agency accountability.

The scorecard needs to be cross-cutting, nimble, and flexible. He showed a list of agencies included who will use the scorecard. Our process is that they're going to receive public and WHEJAC comments on the initial areas of need. They will engage experts and agency representatives. They will update the areas of need to be more specific and focused with an eye toward the idea that federal agencies will have to develop some of their own specific metrics due to their unique agency activities and processes. They're going to integrate, as much as feasible, existing agency programs that illuminate proposed scoring measures.

He then explained the areas of need. The first set of areas of need are whether the agencies are practicing environmental justice in terms of just treatment and full protection. That language, "just treatment and full protection," is referring directly to how those terms were defined in the WHEJAC recommendations on Executive Order 12898. The term "just treatment" means the conduct of a program, policy, practice, or activity by a federal agency in a manner that ensures that no group of individuals experience a disproportionate burden of adverse human health or environmental outcomes resulting from such a program, policy, practice, or activity as determined through consultation with, and with the meaningful participation of, individuals from the communities affected by a program, policy, practice, or activity of a federal agency. It will also ensure that each person enjoys, at a minimum, the full degree of protection from environmental health hazards, especially where disproportionate human health and environmental impacts are demonstrably greater.

Just treatment and full protection also include equitable access to the federal agency actions, including decision-making processes, the elimination of systematic racism and other systematic forms of systematic discrimination, and the improvement of human health and environmental outcomes. He encouraged folks to look at the full description in the recommendations from Executive Order 12898.

The second area is to focus activities on reduction, prevention, and elimination regarding pollution, legacy pollution, and cumulative impacts and to advance the application of Title VI and NEPA to agency policies and actions. With respect to NEPA, that's quite relevant to some of what we heard yesterday concerning the changes that are happening within NEPA right now. He turned the presentation over to Co-Chair Shepard.

Co-Chair Shepard proceeded with the second area of need. How do they ensure that the right data for scoring is collected at the very beginning of agency activities and that they are utilizing quantitative and qualitative forms of data and evidence? It's crucial that the data for scoring and identification is collected at the very beginning, not at the end. They also need to identify communities that are affected by environmental injustice using the most updated definitions of the environmental justice community. They will discuss that a little later. They need to use federal screening tools that already exist. They also need to take further actions to ensure that no community fails to be accounted for if it's not identified by currently adopted screening tools. They're going to have to ground troop the screening tools to ensure that no communities, especially small rural communities, might fall out of the screening tool. So, they want to make sure that they have identified all of the environmental justice communities in the country.

She explained the third area of need. They need to improve human health and environmental outcomes in communities disproportionately impacted by environmental and health hazards.

That includes the improvement of environmental outcomes that protect cultural practices and the maintenance and restoration of cultural heritage and the cultural basis of human health. So again, how are they going to develop metrics that address those particular issues?

She then explained the fourth area of need. They need to collect data and measure whether meaningful participation is actually occurring in federal actions, including the assessment of whether public and community participation is influencing the decision making, the technical assistance, the cultural and linguistic access, as well as access based on ability and capacity building. So, is meaningful participation actually resulting in better actions?

The fifth area of need is to generate strategic planning, timetables, reports, and establish the operation of an environmental justice advisory committee for each agency that is eligible under the FACA law. They also need to generate plans to coordinate with states, counties, and other levels of government. Again, it's going to be very important to understand how the Justice40 monies are actually coordinated with states, county levels, and other kinds of localities after that money leaves the federal government. Again, what are the other areas of need that we have to track? They want to ensure that agencies track how the investments are impacting frontline and environmental justice communities and that it's consistent with Justice40. They want to include measuring the recipients of, and the benefits of investments, both direct and indirect. So, how have those investments made an impact in the lives of people in front line communities?

They want to evaluate the benefits beyond the economic benefits. That includes health, sanitation, cultural protection, really measuring the investment's success in cultivating local ownership, new contractors, workforce development, the establishment of new local financial institutions and tools, thinking about the success of community-driven recovery, adaptation, and rebuilding, and community ownership of infrastructure. So, how are they also helping to build community wealth? They need to track whether federal investments are engaging in processes and implementations that really incorporate a community-driven, community-controlled approach so that the communities that are most impacted benefit as they were intended to benefit.

Ms. López-Núñez stated that, with Justice40, one thing that also keeps coming up in their workgroup is this question about the outstanding 60 percent. If we're going to do a scorecard that truly holds agencies accountable, it is incredibly important that they account for the harm that's also being done to our communities. It shouldn't be a scorecard that's a feel-good card. It should be all-encompassing of what else is happening, how else might the agency actually be working against that 40 percent, and the intention of justice so that it is kept center. She stressed that, in terms of evaluating economic benefits, who is the recipient of money, both indirectly and directly, that we want those measurements going upfront.

What happens to states once they get these lump sums of money and then they start disbursing things? They need to have reporting requirements on money before it goes out the door. Trying to get data after the money has gone out is nearly impossible, and that tracking and data keeping need to be a key point from the outset from implementation all the way to the scorecard. Her two points are the connective tissue between the two workgroups: making sure that data requirements are stringent on the implementation side before the money rolls out the door and, secondly, tracking what happens with the other 60 percent after the money goes out. It is not

Justice40 if 60 percent of the money is being used incorrectly. She opened the floor for comments.

Co-Chair Shepard suggested that they need to talk with many of their advocates in their home states about them holding those states and localities accountable. That is not something that's part of their charge at the WHEJAC, but certainly, the grassroots activities can hold those localities accountable. **Dr. Whyte** agreed.

Ms. Adams asked if there had been any consideration or research around interoperability between systems. For example, from a space of education is the Office of Civil Rights. They have a very rigorous process that they have been implementing for decades where they require school-level information from all school districts across the country and can compile equity reports that are used to determine whether or not a prop for OCR complaints need to be done or a further investigation. **Dr. Whyte** liked the idea of the intersectionality of data across agencies and reporting units. **Ms. Adams** said that she could share what the Office of Civil Rights does as a point of reference.

Vice-Chair Flowers suggested that they need to look at how the local governments or the state government spent the money. She gave examples of how COVID money was misspent. They should make sure that whatever they spend it on is also not doing additional harm to the communities, especially in the rural communities. She also suggested adding a mechanism to address those states that are non-compliant and also having some transparency where states could publish information so people can be aware. That could help galvanize local groups as well if they know that is available and has not been done consistently with Justice40 regulations.

Dr. Whyte replied that they should be able to have that data about how funds are actually spent by the more local forms of government that are engaged in them. He gave an example of money going to tribes, but there's still an issue that that money is ultimately dispensed to nontribal contractors or to supporting leasing operations on tribal lands where it's not fully known whether tribes are truly benefiting economically as they should from that.

Dr. Wright asked about how they can influence monies going directly where they're needed. She's having a hard time understanding what the authority is of this administration or this body to make that happen. They need to try to find ways to make certain that money goes directly to the EJ areas and not to the states. She gave the example of what happened in Houston, Texas; all of the monies for flooding went every place but Harris County, and that was the county that had the most flooding. Her question is, what processes or laws or regulations are already in place about the way states or cities accept money? They need to make sure the money is not redirected. They don't want what's left after a lawsuit. How can they actually direct the funding?

DFO Martin responded that she would make sure that they get a response during their workgroup discussion. **Co-Chair Shepard** responded that a lot of times the money can be distributed through RFPs. The more the agencies can be in control through an RFP process that has very important criteria for environmental justice consultation and minority business enterprise interactions and contractors, the more the agencies can be prescriptive and successful in getting the money to the right communities.

Ms. Santiago stated that it's a really good element to include the other 60 percent in the

scorecard, and it's very consistent with their guiding principles. Her question is, is there a plan to incorporate within the scorecard the harmful activities that these same government bodies may be promoting? **Dr. Whyte** responded it's significant that 60 percent is not only the dollars, but it's all the other things. That 60 percent could actually create exponential growth and benefits for privileged populations for wealthy individuals and organizations and companies that could be extremely harmful to our communities at an exponential level. The focus on the 40 percent side could really obscure harms that would be immediately on the horizon.

Ms. López-Núñez responded she doesn't want this to be a feel-good card where people are taking credit for their investments and not looking at their harm. So to that end, she would love to actually make a recommendation that they vote that the score is then tied to future funding because a state that continually takes money that's meant to benefit communities and uses it to harm communities should have a reduction in future money. There needs to be accountability enforcement built into the recommendations for the scorecard. Otherwise, it becomes just another bureaucratic exercise to both give feedback to and then the agencies engage in and it needs to have consequences. If their recommendations don't include consequences and true accountability, then they haven't gone as far as they need to. They need to hold agencies accountable for harm done to communities regardless of what incentives they give us. **Dr. Whyte** suggested that the Council finds examples of statutory programs where consequences have been used effectively.

Susana Almanza agreed with monitoring the 60 percent. She added that the executive order includes withholding funds from those states and even possibly cities that were non-compliant. **Dr. Whyte** brought the point that the committee on 12898 had excellent legal advice and other expert advice on that, and so the recommendations that were issued were solid. Those recommendations are being taken very seriously, and they should be getting some update on how they're going to be taken up by the White House.

Maria Belen-Power stated that, when a state can't comply, that should force the agency to try to give it closer to the ground, to go either to the municipality or a community group as not to create this disproportionate funding. She cautioned that the state could say, then don't give me money for EJ and that could also be harmful. The agency should go further, dig deeper, and connect directly with the community groups to ensure that environmental justice is still being lived out. We don't want to create another way that there's disproportionate harm or lack of funding to groups, especially in the South.

Ms. Roberts stated a community member from her state rose to become a state representative. He and another colleague introduced and passed an oversight committee resolution that speaks to Justice40. They've also initiated it with a state-wide community-based tour through the entire state. She asked how it is that they can support states and areas who are, indeed, seeking to work on the blind like this to make sure that they are supported in what they are seeking to try to do in the right way?

Chair Moore agreed with the 60 percent do no harm. Part of the other key to this is the systemic dismantling of racism. Within that policy, recommendations need to be consistently looking at the dismantling of systemic racism in policy. There are municipalities, counties, cities, and states that have developed policies that are rooted in systemic racism. The name of the story is

accountability and responsibility. There needs to be strength within their recommendations, and, seeing some of them, they are. But they need to continue to stay strong on both the accountability level and the responsibility level that's rooted in their recommendations.

Don't give them the money if they don't meet the criteria first. It's happening over and over again in local situations where the money is taken back when they're not living up to their responsibility. Those things are very, very crucial.

Ms. Adams suggested using software like Tableau. It tracks literally every single dollar that came through with the funding that went to states. If something like that existed, it would also potentially allow the opportunity for HBCUs as well as indigenous Latinx serving colleges and universities to be able to do reporting to support how those funds were actually used. She also recommended tracking the state of black America. What the National Urban League does is pretty robust reporting on a myriad of things that are very pervasive in the black community as well as other communities of color. There's also potential outlet to think about how this information can be more public facing. **Dr. Whyte** thanked her for those concrete examples.

Mr. Cormons suggested looking at the language of Executive Order 14008 and the charge for the scorecard. It is to measure the overall progress that the IAC is making toward a whole government approach to environmental justice. So that suggests that nothing is off-limits. It's not just the 40 percent under Justice40. It's not just the remaining 60 percent in programs and initiatives to which Justice40 applies. It really is everything the federal government is doing that needs to be viewed through this lens and everything that each agency is doing that needs to be viewed through this lens. It actually goes beyond the 60 percent to the things that are in sort of non-Justice40 applicable categories.

He underscored the importance of getting legal advice for the WHEJAC on what the White House and agencies can do to ensure optimal targeting of resources to where they want them to go where they are most needed and most impactful. They're going to need really good advice because it's probably going to be something that varies depending on the federal statute involved. There are umpteen million different federal statutes in play here. But there must be some guidance that they could get that could help to inform what they would recommend in terms of action by the administration on that.

Dr. Whyte agreed about getting exact clarity on those authorities. They've been clear that this scorecard is about all of environmental justice for everything, but what happens is so many on the WHEJAC and in their own work are hunkered down on figuring out Justice40 and injustice 60 that their conversations gravitate to that point. It's really worth pulling back and saying this is all environmental justice that the scorecard is doing. That shouldn't distract from the fact that this scorecard will be all-encompassing. **Mr. Cormons** emphasized Justice40 is a floor for demonstrable, direct benefits to disadvantaged communities. The other 60 percent needs to be good for everyone too.

Chair Moore brought up two pieces that come along with that and they've been identified in this discussion. One is how the executive order and the other pieces of work are connected to each other. In addition to that, they need to keep in mind the government of Puerto Rico operates differently as do the tribal nations.

Ms. Belen-Power reminded the Council they need specifics for different agencies. For example, it would look different for FEMA than it might for HUD. Not everything is just general, and they could brush it off. They could feel specific categories that were tailored to the agencies. They're looking for ideas from the workgroup but also from the public if there are specific categories that would be helpful to include in their suggestions for the scorecard. Every agency should feel like this is relevant to them, and it's not something they can just brush off.

2.2 WHEJAC Justice40 Workgroup Update & Discussion

Dr. Wright stated that the Justice40 workgroup is designed to answer many of the questions that they have about implementation. Although they are very excited about moving forward with this process with the scorecard, they are very leery about whether or not their work will end up being in vain and not going where they want it to be. The Justice40 workgroup will be doing everything that it can to try to figure out what things should be put in place to make certain that the communities receive the benefits that they should and that they're not short-changed like a kid whose birthday is on Christmas and they only get one gift, and they deserve to get two.

Co-Chair Shepard stated that the workgroup has had briefings with agencies such as FEMA, the Office of Management and Budget, Housing and Urban Development, the Department of Agriculture, and the U.S. Department of Transportation. One of our first recommendations has been around the current situation of wildfires. Just last year alone, ten million acres burned in the United States, compared to 4.7 million in 2019. And last year, the top ten states by the number of acres burned were also among the top in the nation of the number of hired farmworkers with California ranking number one, Washington State number two, and Oregon in the top five.

As we really begin to consider the impacts of wildfires, extreme weather events release large amounts of fine particulate matter into the air. Exposure to high concentrations of fine particles is associated with a range of health problems such as heart attacks, aggravated asthma, decreased lung function, and increased respiratory symptoms. The challenge is that there are no federal standards to protect outdoor workers and communities who are on the front lines of exposure to wildfire smoke. They have called on the administration to establish wildfire smoke safeguards for outdoor workers in particular. Their workgroup member, Ms. Delgado, has been very forthright in bringing that to their attention. That is an imminent situation that they needed to make an immediate recommendation about.

In thinking about how they would begin developing recommendations around how to implement Justice40, they began thinking about categories. They thought about, well, maybe they should focus on states and local accountability. Do they need to focus on communications and how that communication will be rolled out to a variety of audiences by the federal government? What kind of methodology will be used by different agencies to determine what is a benefit? What will be the criteria for requests for proposals? What will be the criteria for grants and contracts? They also know that there may need to be a legislative agenda to basically ensure that there are policies in place for some of the issues that they will need to consider. They need to know how they are going to determine whether money is allocated equitably as it's distributed across the country. Those were some of the initial ideas they began to brainstorm about how to categorize

the work.

When they think about tracking and reporting, how will agencies and departments track Justice40? What kind of software will they use? What kind of metrics will they be using? We also have to clearly define Justice40, what it is and what it isn't. They did some of that in their initial recommendations back in May. They definitely said what they thought was not a benefit to our communities. But again, they have to continue to clarify and define Justice40, what they believe it is, and what it is not. They also need to understand, will tracking be performed collaboratively? Will agencies and departments determine together if they've reached the 40 percent threshold? How will that interagency task force really take this issue on and take the reporting on so that there is a collaborative, unified report on how the agencies and departments have rolled out the funding?

They continue to hear that there's a whole of government policy around Justice40, but is that really true? Is every agency and department required to implement Justice40? They're finding out that may not be the case. And if that's so, how will that reporting occur? She thought she saw something from DFO Martin that said the Department of State, because they are more focused on global climate policy, they're not subject to Justice40. So that was surprising to find that out because the domestic climate policy should also be driving global climate policy. If that is not the case, they certainly need to have it clarified what the interaction is with the Department of State. Are fact sheets on the types of tools and mechanisms used by agencies or departments available to them and to the department?

She continued with a category to consider is state and local accountability. Can the federal government earmark Justice40 funds and direct state entities to use the money in specific ways? If they cannot, obviously that's a key problem because the money will not be used in the specific ways that we have recommended. They need to understand the more specific categories and guidance for Justice40 investment areas. Right now, what they've seen is very general. But they really need to get to specifics. They also understand that state and local engagement might be insufficient to reflect community needs. So how will they ensure that community consultation, engagement, and participation is involved in Justice40 money going to EJ communities? How do they review non benefit related recommendations in the WHEJAC report as well?

Are there legal mandates that they need to have clarified or that they aren't aware of? They need those kinds of briefings from the White House officials. They also need to articulate ways that communities can engage in the development of recommendations and be part of the investment accountability. They know that there are pilots that agencies have developed and that they are reaching out apparently to communities. They don't have any clarification on what that looks like or what is actually happening. So, they need more transparency. They also need to determine and communicate the accountability for using those funds in service to Justice40 because environmental justice communities are asking these questions. In many cases, they are asking them to help them with the accountability around these issues.

Another issue is should they be creating Justice40 offices or review teams in local communities that will hold state and local folks accountable? They understand that each agency is being allowed to determine its own methodology for determining benefit. She's not sure that they all think that that's a great idea. Should there be one methodology or are the agencies' work so

different that the methodology should be different depending on the agency? That's a key question. Also, is the Climate and Economic Justice Screening Tool also a tracking tool? Can tracking also be included in the system of that tool or does that need to be a separate set of metrics and system?

Again, they have asked about state and local accountability by the federal government. Then they've been told that perhaps each state will have its own screening tool. That certainly needs to be clarified because, if every state has its own screening tool without having been given that mandate is problematic. Some states will not have the capacity to do so. Then what is the point in spending time and funding on developing a federal screening tool if that is not the key tool that mandates where the eligible communities are? So, I think that's a very important factor to get clarification on.

They've talked a lot about states getting money. Well, states don't have to be given a check. States can be required to apply for money just like companies and community organizations apply for money. In fact, they do that today through a variety of means by the federal government. There are many competitions between cities and states for varieties of monies. The request for proposals has to require how the money gets rolled out, who the money goes to, and it's got to be overlaid with the screening tool. There is an opportunity in an RFP to have several requirements not only fair wages, not only including language accessibility, but also requirements for community engagement, for MWBEs, for a whole variety of other criteria that would help ensure that the money is going to frontline communities and is being consulted with the frontline communities as well.

She continued with grants and contracts. Some agencies use cooperative agreements to keep a hand in exactly what's going on. Some of the members have been involved in EPA cooperative agreements where you have an assigned liaison who is working with you, providing some assistance in helping to clarify any issues. So again, cooperative agreements are a good way to keep track of what's going on with a locality or a city or a state.

They also know that several states do not have unions. When they talk about creating good union jobs. They keep hearing that a lot, but we also understand that probably very few states, especially in the south, have unions. Ensuring that there's a mandate for a prevailing wage is a way to ensure that workers are not short-changing those workers who are not able to be part of a union.

They also need mechanisms to determine how those grants are distributed. A lot of current mechanisms have not worked well. A lot of grants have not been awarded to certain kinds of groups or schools or organizations. So, there is a need to evaluate how grants and contracts are designed and developed. There are many ways that agencies use advisory groups to do just that thing, to go over contracts, RFPs, and help ensure that they are equitable and just. Having diverse review teams for Justice40 money at the federal agency level as well as the local and state level is an important way to have accountability.

They know that there may need to be a legislative agenda. A legislative agenda is a longer-term strategy or tactic. Of course, they know that it is not something that can be depended on. But they do need to advise the administration to seek recommendations focused on new authorities

to congress that would assist the development of the Justice40 mechanisms. The group also needs to review and do a gap analysis to recommend how they need to proceed in the next year. What are those gaps that they're finding? What processes do they need to ensure are institutionalized in government and begin to recommend those for passage and perhaps mobilize support for those kinds of policies as well.

Obviously, they want to see that there is an equitable distribution of money nationally to the diversity of frontline communities around the country. They feel that the most impacted communities should be prioritized. They know that there are regions and parts of the country census tracts and ways to get at small rural communities that they need to do. And so, they have been making these recommendations from the screening tool workgroup to the administration. They also want to think about organizations that haven't typically applied to these programs because federal grants are complex. Not all organizations have the capacity, and some have an ideology that they don't want to apply for federal grants for a variety of reasons as well. So again, they need to have an even playing field and they need to ensure that these different mechanisms are communicated well throughout the country. When they're thinking about contracts and RFPs, they know that, for instance, if there's going to be energy efficiencies or other kinds of energy construction that a lot of large organizations are lining up. But do they have community partners? Shouldn't that be required? Do they have MBE folks who are not just subcontractors but can be equal partners?

This is also an opportunity to ensure that our smaller businesses and construction owners finally get a leg up and have an opportunity on an even playing field so that they don't remain small. They now have an opportunity to really scale up. Again, that's the whole issue of making sure that smaller firms can become prime contractors. How do they ensure that the big companies are not gobbling up all of the money and that these smaller firms, often located in communities of color and EJ communities, actually have access to this funding as well?

They have looked at the interim guidance. In the workgroups, they need to go back and focus a little bit more. There were some items in the interim guidance that would be good metrics for the scorecard. But there have been gaps. There was no funding for HBCUs or tribal and Hispanic serving institutions. There was no mention of coal ash communities. They talk about community engagement, but they don't talk about communities engaged in decision making, simply commenting, which is very, very different. They also need to talk about flood mitigation, and they need to discuss displacement, climate gentrification, and climate refugees. And then, of course, there's a gap in reducing the exposure to pesticides as well.

So, that's as far as we've gotten in our first couple of meetings to really begin to think about the categories that they need to focus on and to begin to think of some key principles. She would certainly like to hear any comments from the members about what they have put forward so far and any thoughts that have been generated today.

DFO Martin clarified her statement earlier about the State Department. The State Department is not one of the members of the White House Interagency Council, but they are listed in the interim guidance as an agency with some potential current programs. The comment was that the workgroups are submitting recommendations to the agencies of the interagency workgroup. So not to say that they can't make recommendations to the State Department, she was trying to

clarify that they weren't a member of the Environmental Justice Interagency Council. She apologized. **Co-Chair Shepard** asked why some agencies are part of the interagency group and others are subject to the executive order that are not part of the interagency group?

Dr. Martinez responded that in Executive Order 14008, the agencies that are members of the Interagency Council are named. The workgroup on Executive Order 12898 did make those recommendations to add additional agencies. They are reviewing those under consideration. But Executive Order 14008 launches an Interagency Council. In that executive order, all of the agencies that are members of that IAC can be seen. The charge of the WHEJAC is to make recommendations to the IAC and to seat a new chair. Justice40 is an initiative of which 40 percent of the investment benefits in all of those buckets are covered across all agencies. The WHEJAC has been asked to provide recommendations on Justice40. And so that is the distinction between those two things.

Ms. Almanza had a concern. The possibility is the state should be made to apply for the funding. If there is a state that doesn't believe in environmental justice, they're likely not to apply and they don't give a damn whether they apply. She wanted to make sure that they don't skip that money and that there's somehow funding that would go down to the municipalities or counties who are willing to apply for those funds. **Co-Chair Shepard** responded that there are grant programs right now with the agencies where a variety of those different government entities apply for funding. It could be counties or states or localities. So, yes, some states will not apply, who are not interested in the money if it's going to a frontline community. But it seems that they should be creative and think of other ways for monies to get to those communities for the activities that were recommended.

Ms. Waghiyi wanted to speak more about decision-making. She agreed that they need the strongest language when they talk about these issues because community engagement does not mean full, meaningful participation. What people are facing today in her community is food security. The tribal nation summit is important to hear their issues firsthand. However, they are scheduled during times when the people are trying to put food on the table. They're seeing more and more food shortages because of climate change and the warming of the climate in communities like hers. They need to be consulted about the timing of these important meetings for their voices to be heard.

The other thing is the Army Corps of Engineers, who is responsible for the site characterization and remediation at the two formerly used Cold War-era defense sites on Savoogna, also known as St. Lawrence Island, did not invite her tribes to the record of decision. Only the state of Alaska and the Army Corps signed on. It basically let the military off the hook, and this is a very big injustice. There are ongoing sources of toxic exposure. These sites have never been properly characterized. There's no adequate funding for remediation or clean up. Even though there was an agreement signed, her tribe signed with the military before they turned their lands over. That agreement has never been honored, and they continue to fight for their lives. They have a cancer crisis. It's not a matter of if we'll get cancer but when. Help is not coming fast enough for her generation. As a mother and grandmother, these practices need to be changed for the health and well-being of our future generations.

Chair Moore interjected it's important to understand as a Council that the State Department,

even under the Interagency Council on Environmental Justice, has not been a part of the Interagency Council. They have to be cautious. The workgroup or the Council needs to get a clear understanding that they don't confuse people with information that may or may not be the reality of fact. Let's be careful that the information that they're providing and the information that's being put out is very, very clear. It's confusing enough for our people on the ground already. Many of us are attempting to try to additionally help with that clarification.

Vice-Chair Flowers stated that her question is regarding small, poor communities. A lot of the small communities that she works with don't even have matches for grants. Oftentimes, the money is left on the table because they can't get it. Is there a way in which they could look at the potential for maybe offering guidance or recommendations on poorer communities? A lot of these are aging communities, especially in rural communities, where they can get access to grants without a match and maybe with an in-kind contribution. Otherwise, they wouldn't have access. Could they think about other entities that could receive funding such as unincorporated communities? County commissions are another way in which people can get funding.

She didn't know whether the programs are generally structured for them to be able to apply but that may be another avenue besides the mayor's office or community organizations where they do exist. She's very concerned about matches for these grants because that was one of the problems. That and technical assistance were the two problems during the stimulus program many years ago that left a lot of communities not even being able to get access to what was available even when it was available. They either didn't have the technical assistance or technical know-how, nor did they have the matches that were required. **Co-Chair Shepard** asked if the project that the Partnership for Southern Equity is doing could help some of those groups.

Vice-Chair Flowers responded that it could help some. The question is the capacity to help all the groups that need help. That would be most of the black belt in Alabama, and that would probably be true for lots of counties in Georgia, Mississippi, and places throughout the southeast. But they could play a role. Other groups are also working on providing technical assistance to these accelerators. They need to recognize that the need is much greater than maybe the capacity of the organizations that want to provide help. Maybe there should be some funding for technical assistance or at the very least being able to enable other groups to direct them there to help those small communities that don't have that access.

Ms. Delgado stated that she's concerned about the absence of protection from exposure to wildfire smoke for outdoor workers such as farmworkers. Food security depends on 2.4 million farmworkers. In addition to the threat posed by heat stress which previous WHEJAC accommodations addressed, exposure to wildfire smoke is a growing threat to the health of outdoor workers like farmworkers. Climate change is causing longer and more pronounced droughts. What that means is that in 2020 alone, about 10 million acres burned in the United States compared to 4.7 million in 2019. As wildfires were raging across the west, public officials were urging the general public to stay indoors and in places where they could protect themselves from exposure to wildfire smoke.

Those recommendations were in very sharp contrast to the reality of our nation's farmworkers who were expected to show up and to work, even as smoke was turning day into night. These are

the folks that are predominantly BIPOC workers. Farmworkers are mostly of Latinx or indigenous ancestry, and they're also immigrants. More than three-quarters of farmworkers are immigrants, mostly people of color from Mexico as well as countries in Central America and the Caribbean. In 2020, the top ten states by the number of acres burned seemed to also overlap with the top in the nation as far as the number of hired farmworkers, mostly in California, Washington, and Oregon. Agricultural work is primarily done outdoors in peak seasons of heat and smoke with limited options for folks to have shelter or have a schedule change or have the ability for relocation.

As they consider the impacts of wildfires, these extreme weather events release very large amounts of fine particulate matter into the air. Exposure to these high concentrations of these fine particles is associated with a range of health problems. Since agricultural work demands high levels of physical exertion, this only increases inhalation rates of smoke for farmworkers. If we're wondering whether workers can simply demand better working conditions, it's important to underscore our nation's history and the racism that remains enshrined in our modern labor laws. During the New Deal period of labor reforms in the 1930s where workers across the country gained a range of fundamental protections, President Roosevelt and his allies obtained the support of southern congressmen by excluding farmworkers from key labor protections.

Members of Congress at the time were explicit that they did not believe that people of color deserved the same protections as white people. Due to this exclusion, farmworkers in most states who seek improvements in working conditions can be fired by their employers if they choose to join a union or to participate in any organizing activity. That is not the case for workers in most other industry sectors who count on the federal protections provided by the National Labor Relations Act, which among many things prohibits their employers from firing them for engaging in protected activities. This brings us to the challenge for your consideration that there is no floor of protections to safeguard outdoor workers and communities who are on the front lines of exposure to wildfire smoke. This only underscores the importance of inclusion as a WHEJAC recommendation to the administration.

Ms. Santiago stated that the interim guidance is sort of the first step that they've seen in the implementation of the Justice40 initiative and to the extent that it also incorporates the recommendations that were made. The Council was asked to do a sort of gap analysis and most of the issues were raised in terms of gaps that were perceived in the interim guidance. But there was one thing that stood out in the interim guidance; there are many references to clean energy and not that many to renewable energy. They really need to be specific here. In the interim guidance or in the final product that comes out, the Justice40 initiative should be directed towards the alternatives to fossil fuel and other energy generation options that are renewable. They should be more specific in the final guidance.

Along those same lines, in one of the pilot projects in the USDA presentations, the REAP project, which stands for Renewable Energy for Agricultural Projects, there's a concern that what they're seeing in Puerto Rico, is land being used for utility-scale renewable energy projects. In places like Puerto Rico, where we need to produce more of their own food and obtain a level of food sovereignty and security, funding for utility-scale renewable energy projects will not be helpful. Those are some of the gaps that need to be added to the analysis as to the interim guidance and hopefully see something that addresses those issues in the final

guidance.

Rachel Morello-Frosch added a comment about the outdoor workforce. She encouraged them to also include consideration of firefighters as this force is increasingly growing. In California, it relies very heavily on incarcerated labor to fight these fires. So, if they're going to be calling out the issue of wildfires and the protection of outdoor workers, they need to include the firefighting force as well given some of the unique challenges that it's becoming increasingly dependent on incarcerated labor.

Mr. Cormons commented on two things. He underscored the importance of things that really need to be reflected in the final guidance. Addressing those points is really essential to ensuring that Justice40 is transformative and does not merely replicate and feed into existing inequities. His second point is related to highlighting the inadequacies of stakeholder engagement that have been historically seen and that they need to ensure that this administration is positioned to transcend and do better with. It's going to be very important for the final guidance to include clear, practical, reality-based standards for good equitable stakeholder engagement.

It's not something that agencies necessarily bring expertise in or have historically developed the capacity to do well. The final guidance, as a document essentially coming down from the White House, has a unique kind of power to impress upon agencies the importance of investing in the kind of stakeholder engagements. This can avoid the problems like the ones cited where stakeholder engagement is attempted at a time when people need to be out hunting because of local custom and circumstances. Good stakeholder engagement takes those local realities into account, and that's got to be lifted as a foundationally important priority.

2.3 WHEJAC Climate & Economic Justice Screening Tool Workgroup Update & Discussion

Vice-Chair Flowers reported on the Climate and Economic Justice Screening Tool Workgroup. First of all, their monthly workgroup meetings started in April of 2021. They were meeting once a month and will still meet once a month until the release of the Climate and Economic Justice Screening Tool. A beta version of it will be released soon. In addition, they received briefings from CEQ, EPA, and OMB. The Council on Environmental Quality and the Office of Management and Budget provided periodic updates about the tool to the workgroup over the last several months. The Environmental Protection Agency also provided the workgroup a briefing on future updates to the EJSCREEN and future public engagement around their EJSCREEN.

They also worked with CEQ to prioritize WHEJAC's May 2021 recommendations. They have met regularly to provide additional inputs about their formal recommendation to the Council of Environmental Quality. The group has helped to prioritize and identify critical data for consideration to the Climate and Economic Justice Screening Tool methodology. They had an intense discussion about the definition of disadvantage. Several members of the workgroup worked diligently to help not only have those definitions but what the determinants should be. This workgroup had provided valuable input as CEQ continues to refine the policy that would drive decisions around where the benefits of federal investments are directed as a part of the overall Justice40 initiative.

It's been said numerous times that they want to be sure that the money is directed to the communities that need it the most. The screening tool will be a valuable part of that. They've also been engaged in developing draft recommendations on how to implement WHEJAC's May 2021 screening tool recommendations. The workgroup has been discussing and drafting recommendations on how to implement recommendations submitted in May of 2021, and there were numerous recommendations. They're expecting to receive additional charge questions from CEQ, and they also expect to receive those questions later this year. They'll develop a draft of recommendations to share for the WHEJAC consideration in future public meetings. It's exciting to see this prototype and be engaged in that process. She opened the floor for comments and questions about the screening tool.

Ms. Waghiyi reminded the Council that these are life-and-death issues for the communities, and it's been very rewarding to be part of this. She's hoping this will be making meaningful change because there are so many people who are depending on these mechanisms that we're working to improve and to those that need it the most.

Chair Moore noted that it will be inclusive of droughts and storms for those that not only live in urban communities but for those that live in rural communities. The RMP facilities should be included in the screening tool.

Ms. Roberts supported the importance of the screening tool as well as the scorecard to help them address that "60 and 40". She gave an example of the Health Department in Delaware is looking at some of their programs right now in real time to see what may work. The State Revolving Loan Fund was saying that the one challenge they were having was the challenge around defining what a disadvantaged community is. This is where the scorecard will assist in that process to help them be able to better justify moving those programmatic funds into that EJ space. This is where they're seeing in real time how this particular piece of work, going above and beyond that of the EJ screening tool, is so necessary, vital, and important especially for the legacy challenged communities.

Chair Moore noted that, when they're looking at the screening tool, the screening tool is connected to the Justice40. The Justice40 is connected to the executive order, and then all of those pieces are connected. So they need to consistently be looking at and watching the overlap between the charges they receive and the charges that they discuss amongst themselves.

Vice-Chair Flowers stated that it's also very important to see the connections between all of the parts that they're working on. Hopefully, out of this could come the equity that they're seeking. She moved on to the challenges of farmworkers and what they're dealing with, such as losing fingers and hands and so forth where they're being forced to go to work during COVID. They're not having the kinds of protections or even the types of salaries because the economic system in these agriculture communities was based on slavery, so they still feel they should have labor next to free. This is a very robust discussion that not only deals with the wildfire exposure but also the lack of protection for farmworkers.

Ms. Delgado recognized the use of incarcerated labor and the kind of conditions that they're being exposed to, whether they're being given personal protective equipment or if they even have any training relevant to the hazards of exposure to wildfire smoke and all the toxic

chemicals that are released through that process. She underscored some of the comments mentioned previously with RMP facilities, the impacts and exposure of communities that live near concentrated animal feeding operations.

Ms. Roberts stated that they must make sure that those communities who are in the crosshairs of those spaces can indeed be able to relocate and be made whole, especially when they are going back into the historical roots of systemic racism.

Chair Moore stated that the U.S. government really wants to deal specifically with military toxins. We need to keep in mind the exposure, for example, in 1945 of the testing at the Trinity site. Three generations thus far, 75 years later, have various kinds of cancer. Let's not leave out the impact that the nuclear industry has already had on people on one side. Then, on the other side, let's not additionally leave out the whole thing around military toxins, both before, while they were there, and the after results of death, sicknesses, illnesses that continue to be there.

Miya Yoshitani emphasized the screening tool is only going to be as good as the data that goes into it. There's a lot of concerns with the lack of accurate data on the communities that they're talking about if there's census data that we're relying on. Given how inaccurate the latest census was, that's going to be a huge problem with locating some of these communities accurately. Then the data available that is tracking their health and economic outcomes continues to be a problem when trying to apply something like this to the screening tool.

Ms. Waghiyi informed the Council that there are 700 formally used defense sites in Alaska. A lot are nearby homes and hunting and food-gathering locations. There are 9,000 formally used defense sites in the nation. It's been very difficult to hold the military accountable. These are Cold War-era toxins that have been identified. The burden of proof was put on her people. They have been fighting to hold the military accountable since they abandoned one of the two formally used defense sites and buried everything at the other formally used defense site on their island. They were very a strategic, important location during the Cold War because of their proximity to Russia. The military has turned its back on them.

As she had mentioned, there was an agreement their tribe signed, and that agreement has never been honored. The military is not above the law. Cumulative impacts were repeated mentioned before from so many people that called in about multiple sources of exposures, whether it's from fracking, from CAFOs, and so many different sources. Everything that those communities are being exposed to arrives in the Arctic through air and ocean currents. It is known that the Arctic has become a hemispheric sink for persistent organic pollutants.

Anytime a chemical is spilled, any time it comes out of a smokestack, any time it's produced, it arrives in the Arctic through air and ocean current. They are some of the most highly contaminated populations on the planet because of our reliance on subsistence foods. Basically, our subsistence food is killing her people. These are burdens they didn't create, and she is going to use every opportunity to be a voice for her people because help is not coming fast enough for her generation. Some communities are depending on them.

Dr. Whyte hopes that the screening tool does have a strategy for the various complex issues with data on tribal lands and also with tribal sovereignty. Federal agencies are responsible for

being aware of certain types of tribal lands. There is data on a number of these types of tribal lands, whether reservation and off-reservation trust land, tribal statistical areas, Oklahoma tribal statistical areas, Alaska village statistical areas, Hawaiian homelands or Hawaiian homesteads, and several other ones. For additional indigenous and brown communities, there are these other designations of land. It is part of the trust responsibility that federal agencies should be aware of these lands and the relationship to economics and climate change and the protection of culture.

Another issue is treaty rights. Regarding tribes that participate in treaty rights, especially ones that create co-management arrangements between tribe states and the federal government, these are over huge areas of land. The treaty right is not just the right to a certain number of fish or a certain number of plants; it's actually a right to the overall habitat and overall environmental conditions that make it possible for tribes to support their economies, their cultures, their families, their ways of life, based on that land.

Those have a ton of connections to any number of Justice40 projects. The recent White House memorandum of understanding with other agencies on treaty rights does have a strong commitment to finally creating federal data to amassing all the data on treaty homelands. It's a huge data component to that work, which next year will be producing data. There's an interagency group that will be working on it with the Native American Council within the White House. He can't emphasize enough the criticalness of treaty rights.

Another aspect of it is the nation-to-nation relationship. Given that even among the available data on tribal lands, there are still some things that are obscured. For example, if you show an area that's a big block of a reservation, you don't know whether that's land that tribal businesses are operating in or if it's land leased to non-native people based on historic exploitive relationships between the U.S. private industry and tribes. That information often needs to come from the tribes themselves or from some of the agencies that might have that data. That would require nation-to-nation consultation.

It's important to note that under Executive Order 13175, each agency has been directed to create a consultation policy with federally recognized tribes. That was affirmed by the Biden Administration. In areas where there are serious gaps in the data relating to tribes, it is the U.S. policy to engage in nation-to-nation consultation. That should be articulated as part of the strategy around the screening tools.

Ms. Delgado noted that the U.S. census itself has recognized that in rural communities those that would be most difficult to enumerate are blacks in the south, Latinos in the southwest, American Indians, Alaska natives, residents of Appalachia, as well as migrant and seasonal farmworkers. This is a really important reminder. It puts the onus on them to inform and regularly remind agencies across the administration about the limitations inherent in the census as they will incline to rely on some of that data. Their urging will be in part to make sure that they're accounting for that, especially under considering not just how this impacts the Climate and Economic Justice Tool but also Justice40 investments, lest our communities are going to be left out of some of those resources given the undercounting.

Vice-Chair Flowers added that she just moved next to a community that is a superfund site. One of the locally elected officials told her about this community. It was poisoned by DDT that

came from a corporation located on Redstone Arsenal. That community is historically black. It's called Triana. Although the EPA said that the community's cleaned up, it is still listed on the superfund site. That's just an example of a lot of these legacy communities, that although it's not front and center in the news, a lot of these communities are still dealing with these contaminants.

Another issue involved the census. She is from one of those communities that have been miscounted by the census because the people don't understand that there are families that live down those dirt roads. They're not from those areas. They're not going there to count them. In addition to that, even the definition of families and how many families are living in a mobile home. A lot of people are just undercounting. As a result, they are not getting access to the funds or even recognizing the problems that exist in the communities that a lot of these federal agencies are charged to provide support and help to. Hopefully, there are recommendations about how that is dealt with and what kind of data could be available to supplement that.

Ms. Almanza suggested that one of the things that should be included is the floodplain maps because most communities of color were built in floodplain areas and were more susceptible to flooding. The other thing now is the whole heat island effect. Most communities of color have been impacted by the heat island impact because they are targeted for high-density development. Those are two things that can be added to the data collection. DFO Martin then turned the meeting over to Chair Moore.

2.4 WHEJAC Business Meeting Reflection & Conversation

The WHEJAC will use this time to reflect on the meeting proceedings, public comment period, discuss and deliberate action items, and finalize the next steps. **Chair Moore** reminded the Council that they need a quorum to make some decisions that they're going to proceed with. He encouraged the public to stay connected to see how the WHEJAC process works.

The first agenda item was the business item Renewable Energy Letter workgroup. The WHEJAC is interested in submitting some recommendations to the Council on Environmental Quality and the White House Environmental Justice on renewable energy. They need to form a short workgroup to draft, review, discuss, and address any feedback received from WHEJAC members. The letter will be finalized during the January public meeting. This is very, very crucial as they continue to understand the FACA process and so on. **DFO Martin** explained how to join the workgroup, showed the timeline, and reassured the Council that it is a short-term commitment to resolve the issues in this matter so it can be finalized in January. She opened the floor to any questions about the workgroup.

Ms. Waghiyi asked if a brief recap of this renewable energy letter can be given. **Chair Moore** replied that a letter was shared with WHEJAC members in advance of the meeting. There were disagreements about what goes in the letter. Some WHEJAC members didn't understand the FACA process and the process they needed to go through to move a letter forward. **DFO Martin** added that's why they need to form a workgroup to flesh the items out.

Dr. Sheats asked if comments can still be made on the letter. **DFO Martin** replied yes, but not at this meeting. The members will be asked to submit comments when the workgroup is

gathered.

Ms. Santiago inquired about what happens if 12 people don't sign on to the workgroup? She noticed that there are several meetings to discuss this one letter that's less than a page long. She asked if the workgroup is going to be something broader, like on energy issues. **DFO Martin** replied that, as far as the number 12, that comes from how many people they can have on a workgroup before going over quorum. The workgroups cannot have more than 13 members, but it's kept below that so the chairs can rotate in and out of workgroup meetings. As long as it's under that magic number of 13, there won't be any quorum issues. If we don't have that much interest, and, if it's just five people, they'll make it work. They can't come to a final decision until it's brought it to the full Council anyway. Secondly, there are only about four times that they will meet -- two times in December and two times in January -- to give them some time to go through the process. It's just focused on this one particular issue.

Vice-Chair Tilousi asked if there is a deadline on this letter or what's the timeframe? **DFO Martin** responded that the timeframe is to work through this within the next two months so the Council can finalize it on January 27th. It's a quick turnaround. They're also trying to take into consideration the holidays and that most of the people are also on two or three other workgroups already. She noted that one reason they've had this letter for this amount of time is that we have not had a public meeting since last May. For them to finalize this letter, they would have to have had a public meeting. The idea of this letter came up in June. This meeting was the first opportunity to get a public meeting on the schedule.

Dr. Wright stated that she would warn against adding new energy issues because it's been since June or July trying to get this out. She would vote to just deal with this issue so it can go out. Adding more can be done later.

Chair Moore asked the members to vote on moving forward with the recommendation for the new workgroup. There was a unanimous yes vote. He moved forward with the next agenda item which was, because of the heavy workload on everyone, suspending the formation of new workgroups until they close out one or two of the current workgroups. The recommendation at this particular point is not to form any additional workgroups until we've completed the work we already have. He opened the floor for questions or comments.

Ms. Adams raised a concern about suspending new workgroups. She felt that if they don't elevate ideas that have been raised, they can get lost in translation. If it's not going to be determined that a new workgroup would be established now, are they certain that in January they will be ready to consider it? What if we're not done with the workgroups and work that they have once we reach January because that's not that far away?

Mr. Logan supported the recommendation holding off on the development of new workgroups. They need to do some of the forward work identifying what the timing would be to help to inform decisions. His other comment was on recruiting subject area experts. There is a formal process, and it takes time. Is it possible, in the meanwhile, that they might be able to do some of the foundational research and background information gathering to inform the development of such a workgroup?

Dr. Whyte reminded the Council that there is an urgency for a tribal, indigenous, and native Hawaiian workgroup. The White House recently put out at least three landmark policies: one on violence against native people, one on traditional and ecological knowledge within the regulatory processes, and one on treaty rights.

DFO Martin responded to some of the questions and comments. She stated that she will establish an SOP for establishing a new workgroup. The process was broken down into two different categories: one, workgroups that you all suggest; two, workgroups that would be formed around official charges that we get from the White House, CEQ, or any of other agencies of the IAC. Some members did send in suggestions. The chairs are aware of them. They have been a part of their discussion. Those are the ones that will be considered to start when they get to that point in the process to start thinking about forming new workgroups. Everyone, especially the chairs, is overworked. That's where this whole genesis came from to just take a break. They realize there is some urgency for new workgroups, but they'll need you all to help come up with some solutions when they get to that point, and they have to start another one with the four that they already have.

The last point is, as far as bringing on other members outside of the WHEJAC to work on workgroups, that is something that they can do. The members are a presidential FACA, so names would have to run through the White House to get approval for workgroup members. She will work with Dr. Cecilia and Corey Solow to get those additional members on.

Vice-Chair Tilousi noted it's come to her reality that tribes need to be considered. Tribes are considered in a very different approach than a nonprofit in New York City, for example. Each federal and state agency has a policy to deal with tribes. They, as indigenous representatives on this WHEJAC, really need to talk and decide and try to push a tribal working group for that very reason. Part of the reason she's just been observing and listening is to see where tribes fit in this process. The more she observes and listens, they are kind of in left field in terms of our sovereignty and our governmental structures.

Ms. Adams asked if the Department of Health and Human Services can come and speak about the public health perspective on maternal health and a child perspective? **DFO Martin** answered that is possible, and they are one of the known agencies of the IAC that is on the list to reach out to attend the meeting in January.

Chair Moore added that, instead of WHEJAC chairs also chairing workgroups, WHEJAC members can chair a workgroup. He also noted that they'll go back and look at the FACA rules, under the White House Council, to add expert members. He then moved on to the next agenda item which was public comment period discussions. They allotted additional time for this discussion because of the significance and the importance of public comments and the importance of the recommendations that the public commenters have made and will continue to make.

Before moving to the next agenda item, **Chair Shepard** asked for clarification on the status of a tribal workgroup. Are they saying that the tribal workgroup is subject to discussion in January? **DFO Martin** responded that she would leave it up to the Council members. It seems like a lot of the members are interested in that. So, if they want to have more discussion and try to decide on

that, they can take time to do that. **Chair Moore** reopened the discussion to start a tribal workgroup. **Vice-Chair Tilousi** volunteered to chair it, and **Dr. Whyte** volunteered to co-chair. **Ms. Alamanza, Ms. Begay, and Ms. Waghiyi** volunteered to be in the group. **Chair Moore** proceeded with the vote to form the new workgroup, and there was a consensus. He added that they very clearly identified the political significance at that moment. **Mr. Logan** offered to call it the Indigenous Peoples and Tribal Nations Workgroup. **Chair Moore** proceeded with the vote to accept the name, and it was approved. **DFO Martin** said that she will send an email out to see if anyone else is interested to join the workgroup.

Chair Moore proceeded to move forward with the next agenda item which was public comment period discussions. He opened the meeting to comments.

Vice-Chair Flowers asked, since there were so many suggestions and recommendations made, do they need to have a process in place to address comments and to be able to follow up?

DFO Martin responded that there is nothing in FACA that says that you have to do anything with public comments physically, outside of just using them as you develop recommendations that you send to CEQ and the White House Environmental Justice Interagency Council. One of the things that we have discussed in the chair's meetings is they want to discuss with the larger body what to do with these comments after they're given, after you've reviewed them and used them in your recommendation how you see fit. One topic that has come up is that they want to have some interaction with the Interagency Council about the comments that were received. There need to have some discussions with Dr. Martinez and Ms. Solow on how they start that discussion with the IAC on how they want to move the comments to the White House. That's still on the table for discussion, and they'll bring that up in a future business meeting. If there are ideas to put on the table now, they can take those of what they want to see done with them. It will be part of the meeting record. All of the public comments are collected. They are shared with you, and then they do become a part of the public meeting record.

The NEJAC has been around for almost 30 years, so the EPA has built a database around all of the recommendations and reports that they have received, and it's used quite a bit. A lot of people go to that database to search comments, see what the NEJAC has said, see what kind of comments the public has submitted on a particular issue. We are looking to do something similar like that for the WHEJAC that will be housed on the webpage.

Ms. Santiago stated that, in the case of the St. Croix community, it's a very difficult situation that should be front and center and presented to the IAC concerning the petroleum refinery that might reopen there and the impacts that it's had on the local communities. WHEJAC should have a way to follow through with these comments that people read at the public meeting. It would be helpful to be able to make those connections with IAC.

Chair Moore responded that it has to do with consistency. They're hearing many different issues, but those many different issues, in some cases, are connected. One of the comments that were made was around rural communities. This wasn't just one of them; it was several of them. One of the recommendations that were made was that we add rural participation within the Council. The other one is legacy communities. Our legacy folks that are impacted are consistently coming back and testifying to issues that have not been taken care of in the past.

Another one is gentrification. I'm flagging that one as a form of consistency. Over and over again it's commented, both on the Council and during public comment, the challenges with potential gentrification and existing gentrification.

Vice-Chair Tilousi stated that she hopes that they can get a transcript so they can go back and review what was said because there was so much information. At one point, some of the folks in testifying were pleading to us to do something. Her other suggestion would be that the commenters receive something back in writing from WHEJAC that their testimony was acknowledged. Finally, the mere fact that they all had the courage to bring all their struggles to the Council made her feel kind of helpless because she wants to help everybody. A third point she made was that it seemed that every state has an Arizona Department of Environmental Quality. They are just marching over everybody's feet, every community. They're giving permits, and that was across the board. The Council needs to include not only federal agencies but include state agencies in these enforcement processes and the working groups. **DFO Martin** responded that she would send a copy of all the comments that were received. In the meeting summary, the exact comments that came during the meeting can be pulled out as well. A lot of those folks that spoke during the meeting have also submitted comments in writing. **Vice-Chair Tilousi** asked if the transcripts are searchable for keywords. **DFO Martin** replied yes.

Mr. Havey noted that, even when they do use NEPA and other environmental reviews, they aren't looking at what the cumulative effects are, what is the healthy level of, or what is the unhealthy level of either the pollution or the toxins that are being regulated looking at the surrounding area. He was completely shocking that in the city of Flint, considering the environmental degradation that has occurred there because of the lead pipe issue and some of the decisions made by previously elected officials, that they would allow something like this to go through. How can the Council change the way that says there is a limit, and this is how they have to follow the rules? They just don't seem to take into consideration the cumulative effects that are on there because there are no actual thresholds that are set. It's all subject to individual subjective interpretation at the time that those decisions are being made. He would like to figure out how they could put some real teeth in these environmental reviews that go on.

Dr. Whyte noted that, throughout this entire WHEJAC process, there have been tremendous amounts of concrete life experiences that have been shared, the public comments probably the most. They've also had many WHEJAC members share stories as well. They need to take advantage of this entire mobilization that's occurred under the Biden-Harris administration.

Ms. Lopez-Nunez stated that this was her first time being on the Council and attending a meeting where public comment was given without a response. It was just heartbreaking to hear the hopelessness in a lot of fellow community members. She wondered how they can get people to listen and stay with the WHEJAC as these comments are heard that can then be accountable for actually responding because it's heartbreaking that folks should have to comment or testify before a body that can't make suggestions. Sitting on a call waiting for five hours to be able to testify and not hearing a comment weigh heavy on her. She wanted to be clearer and more transparent to the public, what the members can and cannot do.

She also wanted to know what follow-up is besides "we heard you." There has to be something

maybe a connection between the agencies that our commenters are mentioning and follow up on them that the WHEJAC can track. She doesn't want people to lose faith in the WHEJAC that they spent the time waiting to testify and nothing comes of it. The call to action is to figure out what's the proper use of this board and to not replicate other boards or advisory boards. This is the first time there is a WHEJAC. How can it be pushed to another progression or evolution of things they've previously sat on?

DFO Martin clarified that a lot of the folks that attend the meetings are from federal agencies. She scanned through the list as folks were giving their public comment, and that can be shared with you. George always goes through the list and gives us a breakdown of who was on the call. A lot of those federal agencies are a part of the Interagency Council, and they do attend our meetings. They are there listening. She reminded the Council that they are a new council, so a lot of the processes and a lot of the things that they want to do need to develop because there's not a process for it yet. It's brand new.

A lot of this, like your public comment process, needs more education with the public on exactly what that means. They're working on the SOPs so that next year, they can really get more into the work. Everybody will know what the process is, how our work flows, and then they can get down to some of the issues that need work.

Co-Chair Shepard expressed her frustration with public hearings. For years, she was on NEJAC, listening to public hearings until midnight with no EPA people there and no response as to how EPA responded. Why are replicating this? Every agency should have their own public hearing at which their agency people are there addressing the issues that are raised. Every agency should be assigned and report back to us on their response to these public comments. If they're going to have a public hearing process, every agency should get a report back to WHEJAC on how they responded to these people so that it can be tracked. Going back to some of the initial comments from members, they've got to go back to the drawing board on permitting and regulation. This is all about permits and regulation. Nothing is going to change until we address that and go back to the drawing board on the Clean Air Act and on getting EPA to issue cumulative impact guidance. There are basics here that will not change until we get the basics right. She's very frustrated about this because it's not fair to the public. It's not fair to be put in this situation of listening year after year to the same comment and some of the same people year after year and not even know how they've been responded to.

Dr. Sheats agreed with the previous statements. The Council has two powers. Someone comes in front of us and says comments, and then the Council can write a letter about that to someone he's not quite sure who, in this case. In NEJAC, they could only write the letter to the administrator of NEJAC. He asked if they could write letters to other agencies suggesting that they do things? Then the other function of advisory councils is they can form workgroups and write reports and make recommendations. He suggested that someone goes through the testimonies and takes all the things that people asked them to do. Then they can look and ask, which of these do we want to do? For example, making proximity to chemical hazards an indicator in the screening tool. That's something that maybe the Council can do. Do the Council want to write some letters supporting what folks are saying? Do they want to form a workgroup and do something else? NEPA is very frustrating because it is largely a procedural statute. One way of converting it from purely procedural to substantive is to talk about the no-action

alternative that they can take as that becomes comparable to saying, no, turn down a permit or stop the action. That's why I brought that up.

A no-action alternative is never taken. Broader than that, yes, they need to address cumulative impacts. They need to go beyond assessments. The government needs to have the power either by issuing a regulation or by statutes. There are several statutes out there that give the government power to turn down permits based on cumulative impacts. They've not been adopted. They need to encourage the government to issue regulations or Congress to adopt statutes that say that permits can be denied based on cumulative impacts and environmental justice. Otherwise, they are stuck with just doing assessments that don't give power to stop the action.

Ms. Waghiyi stated that her organization has gone to NEJAC five times, and they've never gotten responses. They go to these meetings. They pour our hearts out because it's a life-and-death matter. There's no regulatory oversight. There needs to be systemic-wide change. These systems are outdated, broken, and not protective of human health. Existing risk assessments are killing us. She agreed that they need to find a way to deal with everything that they've heard and send the public to the agencies and find out what they're going to do with them.

Ms. Delgado echoed the importance of ensuring that there's some accountability. That raises the issue of accountability between the recommendations that WHEJAC made and submitted in May and the gaps between what the agencies are developing. She recognized that they were developing those recommendations at the same time that the interagency group was coming together. They were also receiving the call of the executive order relevant to this. Her concern is with ensuring that there's alignment in what the WHEJAC is recommending that the interagency does and that the various agencies across the government do. Separately, some of the comments that folks addressed in the public meeting had been already integrated. There were some requests about ensuring that coal ash or proximity to health hazards were listed. They are missing CAFOs and are missing RMPs. Those are things that they can address. She's looking forward to reading some of the written comments to get a more detailed insight about what it is that they're asking us to do and what falls within their purview to be able to bring before other agencies.

Dr. Morello-Frosch echoed the frustration of the public comments system. She suggested that a representative from each member of the interagency working group needs to come to public WHEJAC meetings and listen to these public comments with us rather than have us distill public comments and send them to the agency. They need to hear what people are saying. People come to the WHEJAC because there's representation from all parts of the country on a bunch of issues from multiple communities. Instead of people having to go to different agencies to be heard, members of the interagency group from each agency need to be part of this and hear what people have to say.

Mr. Logan echoed that the members of each of the agencies and departments must participate in the WHEJAC meetings, especially the public comment period. With that, it is also important that there are systems set up to respond to and react to and follow up on the public comments, which she then recommended exploring the potential of setting up an ongoing workgroup that is specifically tasked with setting up the system then following up on public comments. She recognized that they just talked about forming workgroups and the complications around that.

Ms. Roberts encouraged them to look beyond the limitations and agreed that the interagency working group needs to be part of this process when engaged in the public comment. It is their responsibility to provide suggestions of solutions and then report back to the Advisory Council. Then the Council can then share whether or not this is the right direction or not. They've exhausted all of the different challenges that have happened with the systems that got us to this point. There's now a new system to hopefully try to address those pieces, really push this thing. How can they get creative, push as best as possible in making sure that there are systems in place, that they move those systems to respond in the right way?

Ms. Yoshitani asked if they can find ways to better use the powers that they do have of accountability and require the relevant agencies to respond. They do have the power of requiring agencies to respond to their direct communication and report back if they ask for that.

Dr. Wright echoed the frustration. She reminded everyone that she just left a two-day tour with the EPA administrator. Louisiana is just as bad if not worse than most of the states that they come from. She had a really strange awakening in dealing with her state and the new administrator. When the administrator brought back all the issues about the community, the governor immediately wanted to fight the whole question of whether or not they live in Cancer Alley. The administrator's response was, "I'm not here to debate Cancer Alley. I'm here to present to you the concerns of communities who are being exposed to toxins, and the data supports that for these communities. What are you going to do about that?" From what she could understand, the governor was a little startled. He said, quote, "Maybe I can put more monitors." He began to talk about responding to the issue. That is what has happened over the years. They have allowed the process itself to put things in the way of us answering questions for specific communities.

What can make their lives better now, not the big question that they have to fight with cumulative impacts and all this? People on the ground right now are suffering. For example, in places where communities need to be relocated, it's not a discussion of whether or not there's enough pollution in a particular area at a certain distance from communities where they need to relocate. That's the reason for relocating. These people are sick. The Clean Air Act is not helping us. The reason is that the laws don't support us. The Clean Air Act is, to a great extent, based on industry standards. Our communities keep losing, and these agencies sit there and listen to us. Then they throw all these regulations at us to tell us why they can't do something different.

To be on a tour 30 years in the waiting and see the same conditions in new communities that haven't been relocated suffering the same way because the regulations in place do not protect us is frustrating. The question is, how do they push forward to get the regulations changed in such a way that it protects communities? If the Council can't get that, how do they force industries to deal with specific communities on the ground right now to make their lives better? The recommendation about having every agency respond to their own question is just so important. She sat there on NEJAC; the community thought they were the enemy. They're sitting there having to listen to public comments, and they can't respond. The same is true with WHEJAC. What power they do have is to make some demands from agencies to respond on how they can move forward. I think the WHEJAC should bring specific cases that are presented and asking for solutions right now.

Chair Moore said that it goes back to accountability and responsibility. This is a new FACA. They've done a lot of important work, and the workgroups have already moved forward with some of the recommendations. If this is a new council, then they have accountability to each other, and they have a responsibility to each other. Now, if it's a new council, then we came in with CEQ with no staff people. He is just as frustrated as everyone else. At the end of the day, there are some important things that they should agree on, and one of those important things was pushing for additional staff people to come on within CEQ from the beginning. The Council needs to get together on the work, then they can get the people moving forward. He turned the meeting over to **Co-Chair Shepard** to discuss the next agenda item.

Co-Chair Shepard stated that this part is an open discussion about our briefing from Brenda Mallory and Gina McCarthy and the NEPA team. One issue that is still held over that was not clearly addressing the definition of disadvantaged communities. This was a part of our original charge. They are being asked for a better definition of disadvantaged communities. That task must be completed quickly.

Chair Moore stated that they need more time and interaction with Gina McCarthy and Chairwoman Mallory to discuss these issues.

Mr. Logan stated that he thinks the frustration is in terms of the inaction on the recommendations and some of the requests and the participation of officials like Gina McCarthy or Chair Mallory. It's really important to really push the envelope to an extent. The Council is a FACA, but they should be pushing the envelope. They should be pushing the boundaries. It's time to elevate their concerns and their frustrations so that they're not just stuck in a box and replicating other FACAs and not being successful. He urged the Council to think about that not just in terms of public commenters but participation from officials and also how the recommendations are still being put on the backburner.

Vice-Chair Flowers echoed that they do need more time with Ms. McCarthy and Ms. Mallory. She also expressed that at the end of a long meeting is not the time to come up with such an important definition where some people have expressed that they are exhausted.

Ms. Roberts stated that they need more time with defining what a disadvantaged community is. She also expressed a deep amount of concern and frustration with Chair Mallory and Gina McCarthy with the building back better after there have been countless years of testimonies at the NEJAC and other FACA spaces. If they're going to be in these processes, they really need to understand that and work together with this.

Ms. Yoshitani stated that, when talking about the discussion with Gina McCarthy, that they get back to the issue that was brought up around net-zero and ensure that they have a serious conversation where they get some further response and answers to the concerns about that overall approach that lacks a real emission target based on actual emissions in our communities as opposed to this sort of market mechanism, trading, gambling game of net-zero. That is a huge policy point with the administration's approach to climate justice.

Ms. Waghiyi stated that some communities can't "build back better" because their home is still

very toxic and communities in Alaska are falling into the Bering Sea. These are poor communities that have no other options. She also would like to hear more explanation about net-zero because they are seeing burdens they didn't create. It's affecting food security with the ice, permafrost, and glaciers melting. It gets repetitive saying the same things over and over and no response from these high officials from these agencies.

Ms. Begay wanted to build on what was said about continuing the conversation about net-zero and the carbon market mechanisms. She would like one with the State Department and with the Department of Energy, specifically with the special Envoy on Climate and how they're addressing human rights and indigenous rights violations as they build out these and invest in these carbon market and market-based climate solutions.

Ms. Santiago suggested having an additional briefing with the Army Corps of Engineers. **Co-Chair Shepard** replied that she didn't see it on the list, but they've made that request.

Ms. Delgado said that relevant to the discussion of the presentation that yesterday from the CEQ individuals on the Phase 1 rule-making modifications to NEPA and the importance of the law and the modifications for public engagement, the modifications seem important given what happened in 2020. They want to be able to discuss a deeper conversation with Brenda Mallory as well as the NEPA team about a critical component that was not included in the requirement for members of the public to submit highly detailed technical comments for the comments to be considered. That is a concern that she has to make sure that everyone is aware that they are not being addressed in the upcoming modifications. She wants to hear from the NEPA whether that is something that they're considering, perhaps for Phase 2 of the rulemaking, or if they can anticipate some of that being reflected, given that the public generally assumes, when they're weighing in as part of these processes, that their voices and the qualitative information that they're providing will be taken into account. She's concerned that the emphasis on the detailed and technical comments for them to be considered undermines public engagement and the people's voices who are being impacted by a range of toxic exposures.

Mr. Logan echoed the suggestion and recommendation regarding NEPA. He also would like to recommend that they invite DOT to present on their effort specifically related to building out and expanding infrastructure related to freight transportation, seaports, freight corridors, and inland ports, as well, and how they plan to invest in those types of infrastructures while not increasing or perpetuating environmental justice and merely building out these for the sake of the Amazons and Walmarts of the world but how these projects may benefit local EJ communities in and around ports.

Chair Moore stated that the discussions that they want to have with Gina and Brenda should be a working session with the WHEJAC.

2.5 Closing Remarks - Announcements & Adjourn

DFO Martin closed with the notification of the proposed next two meeting dates. **Dr. Martinez** thanked everyone for attending and said that she will take their recommendations forward. In terms of requests for agency responses and agency briefings, they do hold chair and vice-chair meetings every other week where they try and plan out those requests and schedule those. The

chairs and vice-chairs are critical leadership in WHEJAC. When they get those requests, we move to get those agencies to respond. She stated that it is an honor and a privilege to serve in this capacity. She thanked the members for the incredible and historic work that has been put forward over the last decades on behalf of communities. Together, they can make a real difference. **Chair Moore** adjourned the meeting.

APPENDIX A: MEETING AGENDA



**THE COUNCIL ON ENVIRONMENTAL QUALITY
WHITE HOUSE ENVIRONMENTAL JUSTICE ADVISORY COUNCIL
VIRTUAL PUBLIC MEETING**

AGENDA	NOVEMBER 17, 2021	3:00 P.M. – 8:00 P.M. ET
3:00 p.m. - 3:30 p.m.	WELCOME & INTRODUCTONS & OPENING REMARKS <ul style="list-style-type: none"> ○ <i>Karen L. Martin, Designated Federal Officer – U.S. Environmental Protection Agency</i> ○ <i>Richard Moore, White House Environmental Justice Council Co-Chair – Los Jardines Institute</i> ○ <i>Peggy Shepard, White House Environmental Justice Council Co-Chair – WE ACT for Environmental Justice</i> ○ <i>Catherine Coleman Flowers, White House Environmental Justice Council Vice Chair – Center for Rural Enterprise and Environmental Justice</i> ○ <i>Carletta Tilousi, White House Environmental Justice Council Vice Chair – Havasupai Tribal Council</i> ○ <i>Brenda Mallory, Chair – The Council on Environmental Quality</i> 	
3:30 p.m. - 4:15 p.m.	REVISION OF NATIONAL ENVIRONMENTAL POLICY ACT REGULATIONS <ul style="list-style-type: none"> ○ <i>Jayni Hein, Senior Director for National Environmental Policy Act – The Council on Environmental Quality</i> ○ <i>Jomar Maldonado, Director for National Environmental Policy Act – The Council on Environmental Quality</i> 	
4:15 p.m. - 4:45 p.m.	CLIMATE POLICY UPDATE <ul style="list-style-type: none"> ○ <i>Gina McCarthy, National Climate Advisor – The White House Office of Domestic Climate Policy</i> ○ <i>Jahi Wise, Senior Advisory for Climate Policy and Innovation – The White House Office of Domestic Climate Policy</i> 	
4:45 p.m. – 5:00 p.m.	BREAK	

AGENDA	NOVEMBER 18, 2021	3:00 P.M. – 7:30 P.M. ET
5:05 p.m. – 5:45 p.m.	WHEJAC CLIMATE & ECONOMIC JUSTICE SCREENING TOOL WORKGROUP UPDATE & DISCUSSION	
5:45 p.m. – 7:15 p.m.	<p>WHEJAC BUSINESS MEETING REFLECTION & CONVERSATION</p> <p>The WHEJAC will use this time to reflect on the meeting proceedings, public comment period, discuss and deliberate action items and finalize next steps.</p> <ul style="list-style-type: none"> o Karen L. Martin, Designated Federal Officer – U.S. Environmental Protection Agency o Richard Moore, White House Environmental Justice Council Co-Chair – Los Jardines Institute o Peggy Shepard, White House Environmental Justice Council Co-Chair – WE ACT for Environmental Justice o Catherine Coleman Flowers, White House Environmental Justice Council Vice Chair – Center for Rural Enterprise and Environmental Justice o Carletta Tilousi, White House Environmental Justice Council Vice Chair – Havasupai Tribal Council 	
7:15 p.m. – 7:30 p.m.	<p>CLOSING REMARKS - ANNOUCEMENTS & ADJOURN</p> <ul style="list-style-type: none"> o Cecilia Martinez, PhD, Senior Director for Environmental Justice – Council on Environmental Quality o Richard Moore, White House Environmental Justice Council Co-Chair – Los Jardines Institute o Peggy Shepard, White House Environmental Justice Council Co-Chair – WE ACT for Environmental Justice o Karen L. Martin, Designated Federal Officer – U.S. Environmental Protection Agency 	

APPENDIX B MEETING PRESENTATIONS



November 17 – 18, 2021

White House Environmental Justice Advisory Council

Public Meeting



Reminders



Meeting attendees are in listen/ view mode only



Attendees who pre-registered for public comment will be given access to speak



The chat feature will not be available in this webinar



There is no opportunity for attendees to speak outside of the public comment period. If you would like to submit a comment in writing for the record, please visit: whejac@epa.gov



Written comments can be submitted until December 2, 2021, to whejac@epa.gov

Meeting Agenda: <https://www.epa.gov/environmentaljustice/white-house-environmental-justice-advisory-council>



Agenda

Wednesday, November 17, 2021

3:00 PM – 3:30 PM	Welcome, Introductions & Opening Remarks
3:30 PM – 4:15 PM	Revision of National Environmental Policy Act Regulations - The Council on Environmental Quality
4:15 PM – 4:45 PM	Climate Policy Update - The White House Office of Domestic Climate Policy
4:45 PM – 5:00 PM	Break
5:00 PM – 8:00 PM	Public Comment Period
8:00 PM	Closing Remarks – Announcements - Adjourn



Opening, Introductions & Opening Remarks



- Karen L. Martin**, Designated Federal Officer
U.S. Environmental Protection Agency
- Richard Moore**, White House Environmental Justice Council Co-Chair – Los Jardines Institute
- Peggy Shepard**, White House Environmental Justice Council Co-Chair – WE ACT for Environmental Justice
- Catherine Coleman Flowers**, White House Environmental Justice Council Vice Chair – Center for Rural Enterprise and Environmental Justice
- Carletta Tilousi**, White House Environmental Justice Council Vice Chair – Havasupai Tribal Council



WHEJAC Members from the West

Angelo Logan
Campaign Director
Moving Forward Network

Rachel Morello-Frosch, PhD
Professor
UC Berkeley

Viola Waghiyi
Environmental Health and Justice Program Director
Alaska Community Action on Toxics

Miya Yoshitani
Executive Director
Asian Pacific Environmental Network



WHEJAC Members from the Midwest

Jade Begay
Climate Justice Campaign Director
NDN Collective

Kim Harvey
Director, Division of Sustainability
City of Minneapolis

Kyle Whyte, PhD
George Willis Pack Professor
Environment and Sustainability
University of Michigan

Hli Xyooj
Founder, Advancement of Hmong Americans



WHEJAC Members from the Southeast

Tom Cormons
Executive Director
Appalachian Voices

LaTricea Adams
Founder, CEO & President
Black Millennials for Flint

Harold Mitchell
Founder
ReGenesis

Beverly Wright, PhD
Founder and Executive Director
Deep South Center for Environmental Justice



WHEJAC Members from the Southwest

Susana Almanza
Director, People Organized in Defense of Earth
and Her Resources

Robert Bullard, PhD
Professor, Department of Urban Planning
and Environmental Policy
Texas Southern University

Juan Parras
Founder and Executive Director
Texas Environmental Justice Advocacy Services



WHEJAC Members from the Northeast

Maria Belen-Power
Associate Executive Director
GreenRoots

Jerome Foster
Executive Director and
Founder
One Million of Us

Andrea Delgado
Government Affairs Director
United Farm Workers Foundation

Maria Lopez-Nunez
Deputy Director, Organizing and Advocacy
Ironbound Community Corporation

Michele Roberts
Co-Coordinator, Environmental Justice
and Health Alliance for Chemical Policy Reform

Nicky Sheats, PhD
Director, Center for the Urban Environment
John S. Watson Institute for Urban Policy
and Research, Kean University



WHEJAC Member from Puerto Rico

Ruth Santiago
Attorney, Comité Dialogo Ambiental and El Puente
Latino Climate Action Network



Opening Remarks



Council on Environmental Quality



Brenda Mallory, Chair

Revision of National Environmental Policy Act (NEPA) Regulations

- Jayni Hein, Senior Director for National Environmental Policy Act – *The Council on Environmental Quality*
- Jomar Maldonado, Director for National Environmental Policy Act – *The Council on Environmental Quality*

Presentation





Council on Environmental Quality (CEQ)

*Revision of National Environmental Policy Act
Regulations (NEPA)*

WHITE HOUSE ENVIRONMENTAL JUSTICE ADVISORY COUNCIL
NOVEMBER 17, 2021

11/18/2022

Agenda

- Introductions
- Phase 1 Notice of Proposed Rulemaking
- Phase 2 Rulemaking
- Greenhouse Gas Emissions and Climate Change Guidance

11/18/2022

NEPA & CEQ Background

- NEPA was signed into law in 1970 to promote environmental protection for present and future generations.
- NEPA established CEQ, which promulgated its NEPA implementing regulations in 1978. (40 CFR parts 1500-1508).
- CEQ's regulations were largely unchanged for more than 40 years, until the publication of the 2020 rule.
- In addition to regulations, CEQ also develops written guidance on a wide range of NEPA-related issues.

11/18/2022

Goals of Phase 1

- Phase 1 focuses on a narrow set of targeted amendments to provisions that are posing near-term implementation challenges. Phase 1 generally restores select regulatory provisions from the 1978 NEPA Regulations.
- Restores three core provisions of the NEPA Regulations to provide communities and decision makers with complete information about proposed actions, associated impacts, and their alternatives.
- These proposed reforms are guided by fundamental principles of:
 - Informed and science-based decision making;
 - Transparency; and
 - Public engagement.

11/18/2022

Key Changes Proposed in Phase 1

(1) Restores the requirement that Federal agencies evaluate all the relevant environmental impacts of the decisions they are making.

The proposed changes at 40 CFR 1508.1(g) would:

- Make clear that agencies must consider the “direct,” “indirect,” and “cumulative” effects of a proposed decision; and
- Promote evaluation of a full range of impacts, including climate change impacts and impacts on communities already overburdened by environmental concerns, such as polluted air or dirty water.

11/18/2022

Key Changes Proposed in Phase 1

(2) Restores the full authority of agencies to work with communities to develop and analyze alternative approaches that could minimize environmental and public health costs.

The proposed changes at 40 CFR 1502.13 and 40 CFR 1508.1(z) would:

- Give agencies the flexibility to determine the “purpose and need” of a proposed action based on a variety of factors; and
- Allow agencies to work with project proponents and communities to mitigate or avoid environmental harms by analyzing common sense alternatives.

11/18/2022

Key Changes Proposed in Phase 1

(3) Establishes CEQ's NEPA regulations as a floor, rather than a ceiling, for the environmental review standards that federal agencies should be meeting.

The proposed changes at 40 CFR 1507.3 would:

- Restore the ability of Federal agencies to tailor their NEPA procedures to help meet the specific needs of their agencies, the public, and stakeholders.

11/18/2022

Public Comment

- CEQ held two virtual, public meetings on the proposed rule.
- The comment period ends on November 22, 2021.
- To submit comments, please visit:

<https://www.regulations.gov/docket/CEQ-2021-0002>

11/18/2022

Phase 2 - Goals

- Proposed revisions are intended to ensure that NEPA provides for an effective environmental review process that:
 - Promotes better decision making consistent with statutory purpose;
 - Ensures full and fair public involvement;
 - Provides for an efficient process and regulatory certainty; and
 - Meets environmental, climate change, and environmental justice objectives.
- Proposed revisions guided by fundamental principles of:
 - Informed and science-based decision making;
 - Transparency; and
 - Public engagement.

11/18/2022

Illustrative Issues for Feedback

- Environmental justice considerations
- Public engagement and transparency
- Scoping
- Alternatives Analysis
- Climate change considerations and analysis

11/18/2022

Guidance on Greenhouse Gas Emissions and Climate Change

CEQ is working to update the 2016 NEPA GHG Guidance. Illustrative topics include:

- Quantifying a proposed action's GHG emissions, including indirect emissions.
- Making GHG emissions information easy to understand and more accessible to the public.
- Best practices for addressing the effects of climate change on proposed actions and alternatives.

11/18/2022

Thank You

- Thank you for your interest and engagement in our initiatives.
- To submit comments on the Phase 1 NPRM, visit:
<https://www.regulations.gov/docket/CEQ-2021-0002>
- For more information, please visit:
www.nepa.gov

11/18/2022

National Climate Policy Update




Gina McCarthy, National Climate Advisor
The White House Office of Domestic Climate Policy

Presentation



Public Comment Period

- Members of the public will be given three (3) minutes to present comments to the WHEIAC.
- Submit written comments to: whejac@epa.gov



Closing Remarks

- Cecilia Martinez, PhD, Senior Director for Environmental Justice Council on Environmental Quality
- Richard Moore, White House Environmental Justice Council Co-Chair - Los Jardines Institute
- Peggy Shepard, White House Environmental Justice Council Co-Chair - WE ACT for Environmental Justice
- Karen L. Martin, Designated Federal Officer U.S. Environmental Protection Agency



November 17 – 18, 2021

White House Environmental Justice Advisory Council

Public Meeting

Reminders



Meeting attendees are in listen/ view mode only



Attendees who pre-registered for public comment will be given access to speak



The chat feature will not be available in this webinar



There is no opportunity for attendees to speak outside of the public comment period. If you would like to submit a comment in writing for the record, please visit:

whejac@epa.gov



Written comments can be submitted until December 2, 2021, to whejac@epa.gov

Meeting Agenda: <https://www.epa.gov/environmentaljustice/white-house-environmental-justice-advisory-council>

Agenda

Wednesday, November 18, 2021

3:00 PM – 3:30 PM	Welcome, Introductions & Recap
3:30 PM – 4:10 PM	WHEJAC Scorecard Workgroup Update & Discussion
4:10 PM – 4:50 PM	WHEJAC Justice40 Workgroup Update & Discussion
4:50 PM – 5:05 PM	Break
5:05 PM – 5:45 PM	WHEJAC Climate & Economic Justice Screening Tool Workgroup Update & Discussion
5:45 PM – 7:15 PM	WHEJAC Business Meeting Reflection & Conversation
7:15 PM – 7:30 PM	Closing Remarks – Announcements - Adjourn

Welcome, Introductions & Recap



Karen L. Martin
Designated Federal Officer
U.S. Environmental Protection Agency

Richard Moore
White House Environmental Justice Council Co-Chair
Los Jardines Institute

Peggy Shepard
White House Environmental Justice Council Co-Chair
WE ACT for Environmental Justice

Catherine Coleman Flowers
White House Environmental Justice Council
Vice Chair
Center for Rural Enterprise and Environmental Justice

Carletta Tilousi
White House Environmental Justice Council
Vice Chair
Havasupai Tribal Council

WHEJAC Members from the West

Angelo Logan
Campaign Director
Moving Forward Network

Rachel Morello-Frosch, PhD
Professor
UC Berkeley

Viola Waghii
Environmental Health and Justice Program Director
Alaska Community Action on Toxics

Miya Yoshitani
Executive Director
Asian Pacific Environmental Network



WHEJAC Members from the Midwest

Jade Begay
Climate Justice Campaign Director
NDN Collective

Kim Harvey
Director, Division of Sustainability
City of Minneapolis

Kyle Whyte, PhD
George Willis Pack Professor
Environment and Sustainability
University of Michigan

Hli Xyooj
Founder, Advancement of Hmong Americans



WHEJAC Members from the Northeast

Maria Belen Power
Associate Executive Director
GreenRoots

Jerome Foster II
Executive Director and Founder
One Million of Us

Andrea Delgado
Government Affairs Director
United Farm Workers Foundation

Maria Lopez-Nunez
Deputy Director
Organizing and Advocacy
Ironbound Community Corporation

Michele Roberts
Co-Coordinator
Environmental Justice and Health Alliance for
Chemical Policy Reform

Nicky Sheats, PhD
Director
Center for the Urban Environment
John S. Watson Institute for Urban Policy
and Research
Kean University



WHEJAC Members from the Southeast

Tom Cormons
Executive Director
Appalachian Voices

LaTricea Adams
Founder, CEO & President
Black Millennials for Flint

Harold Mitchell
Founder
ReGenesis

Beverly Wright, PhD
Founder and Executive Director
Deep South Center for Environmental Justice



WHEJAC Members from the Southwest

Susana Almanza
Director, People Organized in Defense of Earth
and Her Resources

Robert Bullard, PhD
Professor, Department of Urban Planning
and Environmental Policy
Texas Southern University

Juan Parras
Founder and Executive Director
Texas Environmental Justice Advocacy Services



WHEJAC Member from Puerto Rico

Ruth Santiago
Attorney, Comité Dialogo Ambiental and El Puente
Latino Climate Action Network



Workgroup Updates

- WHEJAC Scorecard Workgroup
- WHEJAC Justice40 Workgroup
- WHEJAC Climate & Economic Justice Screening Tool Workgroup

WHEJAC Scorecard Workgroup: Charge

Executive Order 14008 requires in Sec. 220 (d) that:

- The EJ Interagency Council (IAC) develop clear performance metrics to ensure accountability and publish an annual public performance scorecard on its implementation, and that the IAC do so by consulting with the White House Environmental Justice Advisory Council.
- The scorecard provide a method for evaluation and accountability to assess the progress of agencies' in addressing current and historic environmental injustice.

Workgroup Chairs
Peggy Shepard
Kyle Whyte, PhD

Workgroup Members
Maria López-Núñez
Rachel Morello-Frosch, PhD
Beverly Wright, PhD
Michele Roberts
Richard Moore



EJ Scorecard Question

What types of indicators or data would be useful in an agency scorecard?

At this time, your input can be in the form of general ideas or specific data. As noted, this will be a continuing process, and the WHEJAC will have ongoing opportunity for providing further feedback.

WHEJAC Scorecard Workgroup Strategy

- Draw from: (a) all WHEJAC recommendations, (b) consultations with outside experts and federal agency representatives, (c) the Justice40 Interim Guidance and (d) the Climate and Economic Justice Screening Tool Interim Guidance.
- Identify areas of need for scoring federal agencies on their contributions to EJ.
- Learn what agencies are doing now to track progress on Justice40 initiatives and programs.
- Form recommendations that ensure an environmental justice scorecard effectively tracks agency accountability.

Scorecard needs to be cross-cutting and nimble

- Ultimately, a scorecard needs to combine cross-cutting metrics and indicators while also accommodating specificities of each agency, office, and role in Justice40.

(i) Defense; (ii) Attorney General; (iii) Interior; (iv) Agriculture; (v) Commerce; (vi) Labor; (vii) Health and Human Services; (viii) Housing and Urban Development; (ix) Transportation; (x) Energy; (xi) Council of Economic Advisers; (xii) Environmental Protection Agency; (xiii) Management and Budget; (xiv) Federal Permitting Improvement Steering Council; (xv) Science and Technology Policy; (xvi) National Climate Advisor; (xvii) Assistant to the President for Domestic Policy; and (xviii) the Assistant to the President for Economic Policy.

Workgroup Plan and Presentation

- Receive public and WHEJAC comments on initial areas of need and engage experts and agency representatives
- Update areas of need to be more specific and focused, with an eye toward the idea that federal agencies will have to develop some of their own specific metrics due to their unique agency activities and processes
- Integrate, as much as feasible, existing agency programs that illuminate proposed scoring measures
- The following slides cover identified areas of need from the initial workgroup meetings.

Areas of Need for a Scorecard to Track

- 1) practice environmental justice as just treatment and full protection
- 2) focus activities toward reducing, preventing, and eliminating pollution, legacy pollution and cumulative impacts
- 3) advance the application of Title VI and NEPA to agency policies and actions

Areas of Need 2

- 4) ensure that the right data for scoring is collected at the beginning of agency activities, and utilizing quantitative and qualitative forms of data and evidence
- 5) identify communities affected by environmental injustice using:
 - the most updated definitions of “environmental justice community”
 - federal screening tools
- 6) take further actions to ensure that no community fails to be accounted for if unidentifiable by currently adopted screening tools

Areas of Need 3

- 7) Improve human health and environmental quality outcomes in communities disproportionately impacted by environmental and health hazards, including:
 - improvement of environmental outcomes that protect cultural practices,
 - maintenance and restoration of cultural heritage, and the cultural bases of human health.

Areas of Need 4

- 8) collect data and measure whether "meaningful participation" is occurring in federal actions, including assessing whether public and community participation are influential on and informative of decision-making, technical assistance, cultural and linguistic access as well as access based on ability, and capacity-building.

Areas of Need 5

- 9) generate strategic planning, timetables, reports, the establishment and operation of an environmental justice advisory committee (for each agency, under FACA), and plans to coordinate with states, county, and other levels of government

Areas of Need 5 – Justice40

- 10) ensure agencies track how their investments are impacting frontline and environmental justice communities, consistent with Justice40, including measuring recipients of and benefits of investments – both direct and indirect
- 11) evaluate benefits beyond economic benefits, including health, sanitation, and cultural protection, measuring investments success in cultivating local ownership, contractors, workforce development, the establishment of local financial institutions and tools, community-driven recovery, adaptation, and rebuilding, and community ownership of infrastructure,
- 12) track whether federal investments are engaging in process and implementation that incorporate a community-driven, community-controlled approach so that communities most directly impacted benefit as intended.

WHEJAC Justice40 Workgroup

Key Actions/Activities:

- 1. Bi-Monthly Workgroup Meetings
- 2. Received Briefings from Council on Environmental Quality, Office of Management and Budget and United States Department of Agriculture
- 3. Requested Briefings from United States Department of Agriculture, United States Department of Housing and Urban Development, Department of Transportation, Department of Energy, Federal Emergency Management Agency, United States Department of Interior to learn more about their plans to implement Justice40
- 4. Reviewed Interim Implementation Guidance for the Justice40 initiative
- 5. Developing Draft Recommendations for the Implementation of Justice40

Workgroup Chairs

Peggy Shepard
Beverly Wright, PhD

Workgroup Members

Maria Belen Power
Andera Delgado
Robert Bullard, PhD
Harold Mitchell
Jerome Foster II
Kim Havey
LaTricea Adams
Maria López-Núñez
Miya Yoshitani
Ruth Santiago
Tom Commons



WHEJAC Climate & Economic Justice Screening Tool Workgroup

Key Actions/Activities:

1. Monthly Workgroup Meetings
2. Received Briefings from the Council on Environmental Quality (CEQ), the United States Environmental Protection Agency (EPA) and the Office of Management and Budget (OMB)
3. Worked with the United States Digital Service (USDS) to prioritize WHEJAC May 2021 Climate and Economic Justice Screening Tool (CEJEST) recommendations
4. Developing draft recommendations on how to implement WHEJAC May 2021 CEJEST recommendations
5. Expecting to receive additional charge questions from CEQ

ITEM FOR DISCUSSION/FEEDBACK: Exposure to Wildfire Smoke

Workgroup Chair
Catherine Coleman Flowers

Workgroup Members
Jade Begay
Andrea Delgado
Nicky Sheats, PhD
Rachel Morello-Frosch, PhD
Jerome Foster II
Juan Parras
Michele Roberts
Viola Waghiiyi



DRAFT PROPOSAL FOR DISCUSSION:

EXPOSURE TO WILDFIRE SMOKE

In addition to the threat posed by heat stress, exposure to wildfire smoke is a growing threat to the health of outdoor workers such as farm workers. Climate change is causing longer and more pronounced droughts.

- In 2020 alone, about 10 million acres burned in the United States, compared to 4.7 million in 2019.
- On the frontlines of exposure to wildfire smoke are Black, Indigenous, People of Color (BIPOC) workers, as farm workers are predominantly of Latinx and/or indigenous ancestry.
- In 2020, the top 10 states by number of acres burned are also among the top in the nation in number of hired farmworkers, with California ranking #1, Washington as #2, and Oregon in the top 5.
- As we consider the impacts of wildfires, these extreme weather events release large amounts of fine particulate matter (PM 2.5) into the air.
- Exposure to high concentrations of fine particles is associated with a range of health problems such as heart attacks, aggravated asthma, decreased lung function, and increased respiratory symptoms.


DRAFT PROPOSAL FOR DISCUSSION:

EXPOSURE TO WILDFIRE SMOKE

CHALLENGE:
There is no federal standard to protect outdoor workers and communities who are on the frontlines of exposure to wildfire smoke.

RECOMMENDATION DISCUSSION:
WHEJAC Members provide input

**WHEJAC
Business
Meeting
Reflection &
Conversation**



The WHEJAC will use this time to reflect on the meeting proceedings, public comment period, discuss and deliberate action items and finalize next steps.

- Renewable Energy Letter
- New Workgroups
- Public Comment Period Discussion
- Open Discussion
- WHEJAC Meeting Schedule

Renewable Energy Letter

- The WHEJAC is interested in submitting some recommendations to The Council on Environmental Quality and The White House Environmental Justice on renewable energy
- We need to form a short-term workgroup to draft, review, discuss and address any feedback received from WHEJAC members
- We will finalize this letter during our January public meeting (schedule is on next slide)



Renewable Energy Letter

Renewable Energy Letter Schedule	
11/18/2021	Establish workgroup during public meeting
12/7/2021 – 1/18/2022	Workgroup Meetings 1 st and 3 rd Tuesdays
12/17/2021 – 1/3/2022	Send letter to WHEJAC for Review and Comments
1/3/2022 – 1/21/2022	Reconcile Comments
1/24/2022	Send letter to WHEJAC in advance of public meeting
1/27/2022	Discuss, deliberate and vote to finalize letter during public business meeting

If you are interested in being a part of this workgroup, please send an email to Karen (martin.karen@epa.gov) by COB, Friday, November 24th

New Workgroups

In order to manage the work of the WHEJAC and the amount of time WHEJAC members spend in weekly meetings, the Chairs have decided to put a hold on forming additional workgroups until we close out 1 or 2 of our current workgroups. We will discuss the formulation of new workgroups during our January business meeting once we have a better idea of releases of the screening tool, the E.O., and any new charges we may be issued.



Public Comment Period Discussion

We will use this time to discuss what we heard during public comment period.

➤ Purpose of Public Comment Period

- Allows members of the public the opportunity to speak directly to the WHEJAC about environmental justice issues and concerns
- Enhances the WHEJAC's understanding of the problems and issues deemed important to the public around the county
- Provides additional information for the WHEJAC to consider as it provides advice and recommendations to the Council on Environmental Quality and the White House Environmental Justice Interagency Council



Open Discussion

We will use this time for the following:

- Any outstanding discussion or questions that we need to get on record from our briefing with Brenda Mallory, Gina McCarthy or the NEPA Team
- Any requests for additional briefings for public meetings or workgroup meetings
- Any other topics members would like to raise for WHEJAC consideration or discussion

WHEJAC Meeting Schedule

Public Meetings

- January 26-27, 2022
- March 30-31, 2022

Registration and meeting details will be published in the federal register and sent out through the EPA-EJ listserv.

Closing Remarks

- Cecilia Martinez, PhD, Senior Director for Environmental Justice Council on Environmental Quality
- Richard Moore, White House Environmental Justice Council Co-Chair - Los Jardines Institute
- Peggy Shepard, White House Environmental Justice Council Co-Chair - WE ACT for Environmental Justice
- Catherine Coleman Flowers, White House Environmental Justice Council Vice Chair – Center for Rural Enterprise and Environmental Justice
- Carletta Tilousi, White House Environmental Justice Council Vice Chair – Havasupai Tribal Council
- Karen L. Martin, Designated Federal Officer - U.S. Environmental Protection Agency



Thank you for your participation – see you in January!



APPENDIX C MEETING ATTENDEES

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
David	LaPlante	None
Sarah	Bailey	Bridges Into the Future/ Community Based Organizations Partners (CBOP)
Juan	Jhong-Chung	Michigan Environmental Justice Coalition
Taaka	Bailey	MDEQ
Jeannie	Williamson	US EPA
Theresa	Romanosky	Association of American Railroads
Ryke	Longest	Duke School of Law
Ryan	Bahnfleth	Esri
Lorna	Withrow	NCDHHS, DPH, OSWP
Mark	Fite	U.S. EPA - Region 4
Rebecca	Stanfield McCown	National Park Service
Mike	Kolian	US EPA
Emily	Wolf	National Parks Conservation Association
Margaret	Tarrant	Alaska Community Action to Toxics
Leigh	Ford	Snake River Alliance
Katherine	Diaz	None
Melissa	Muroff	Delaware County District Attorney's Office
Alexandra	Gilliland	House of Representatives Staff
Valérie	Lechêne	TAL
Matthew	Greene	U.S. Fish and Wildlife Service
Joan	Wesley	Jackson State University
Lauren	Childs-Gleason	NASA
William	Farmer	NOAA/CPO
Anthony	D'Souza	Air Alliance Houston
María	Gabriela Huertas Díaz	San Juan Bay Estuary Program - ESTUARIO
Tyler	Jenkins	Senate EPW
Sonrisa	Lucero	RMI
Harrison	Humphreys	Air Alliance Houston
Susan	Goldsborough	Families for Clean Air
Nathaly	Agosto Filion	City of Newark Office of Sustainability
Nicolette	Fertakis	EPA
Carl C	Anthony	Earth House Inc.
Christine	Compton	IRWD
Katie	Pappas	Stop the Polluting Port Coalition
Anita	Cunningham	Robeson County Cooperative Sustainable Development

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Victoria	Haber	Lewis Burke Associates
Cozetta	LaMore	Choices Interlinking Alliance
Cynthia	Sanchez	IEPA
Jennifer	Duever	Deloitte
Donna	Chavis	Friends of the Earth
Dawud	Shabaka	Harambee House, Inc. / Citizens for Environmental Justice
Cheryl	Johnson	People for Community Recovery
Diana	Umpierre	None
Julie	Jimenez	None
Jamie	Simmons	MiCAN
Andrea	Everett	MatriARC PROJECTION LLC
Jamesa	Johnson Greer	Michigan Environmental Justice Coalition
christine	urban	US EPA
Emily	Brooks	USGS
Kim	Lambert	U.S. Fish and Wildlife Service
Kristine	Nixon	A1M Solutions
Ericka	Farrell	EPA
Valerie	Rangel	nmelc.org
Briana	DuBose	Eco Works
Katherine	Mlika	USDS
Hilary	Zarin	DOI
May	Bhetraratana	California Air Resources Board
Kandyce	Perry	NJ Department of Environmental Protection
Glennette	Clark	USDS
Dave	Arndt	Self
bonnie	sager	Huntington CALM
Tamara	Freeman	EPA R7
Daniel	Padilla Ochoa	Ocean Conservancy
Paul	Wilson	Ríos to Rivers
Carolyn	Marsh	Save Whiting And Neighbors (S.W, A.N.)
Kevin	Wickersham	Hudson Center for Community and Environment
Hannah	Bartling	EPA
Ava	Gabrielle-Wise	Southeast Crescent Regional Commission Coalition
Wendi	Wilkes	Association of State Drinking Water Administrators (ASDWA)
Diane	Sinkowski	USDA
Dariu	Sivin	UAW
Annie	Chen	OEHHA
Helen	Waqui	Minnesota Pollution Control Agency
Bonita	Johnson	USEPA

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Shalanda	Baker	Department of Energy
Rachel	Patterson	Evergreen Action
Romona	Taylor Williams	MCUP
Peter	Shields	ICF
Richard	Pinkham	Booz Allen Hamilton
Julian	Gonzalez	Earthjustice
Mikel	Maron	Mapbox
JOHN	OLUWALEYE	Gender-Based violence as a public Health Issue
naomi	yoder	Healthy Gulf
Olivia	Lopez	Ocean Conservancy
Crystal	Davis	Alliance for the Great Lakes
Eric	Buck	SAIC/Navy
Gregory	Simpson	Nauraushaun Presbyterian Church
Jose	Bravo	Just Transition Alliance
Ray	Hall	Bmforflint/UNA-USA
David	Lonnberg	shift7
Marilynn	Marsh-Robinson	EDF
E Hill	De Loney	Flint Odyssey House, Inc.
Jennifer	Muus	NMED
Catherine	Kemp	University of Michigan
Maya	Nye	Coming Clean
Daniel	Nierenberg	NYSDOT
Ann	Miracle	Pacific Northwest National Laboratory
Christina	Chiappetta	GSA
Bridget	Weir	US EPA
Ryan	Hathaway	Department of the Interior
Shawn	O'Brien	Troutman Pepper
Gonzalo	Rodriguez	Earthjustice
Kimberly	Doley	Water Wise Gulf South
Rachel	Jones	National Association of Manufacturers
Henry	Mayer	CRESP - Vanderbilt University
Krystal	Laymon	WH
WILL	PATTERSON	EPA
Bernadette	Mora	Pinoleville Pomo Nation
Stephanie	Herron	EJHA
Garian	Clark	HHS, Office for Civil Rights
Brad	Devereaux	MLive.com
Eric	DAlessio	Private Citizen
Elizabeth	Ross	Gunster
Cynthia	Mellon	Climate Justice Alliance

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Phoebe	Gooding	Toxic Free North Carolina
Amelia	Gooding Cheek	Illinois Environmental Regulatory Group
Stefanie	Tsosie	Earthjustice
Morgan	King	West Virginia Rivers Coalition
Colleen	Cooley	None
Kenyatta	Miles	Shell
nalleli	hidalgo	TEJAS
Deena	Tumeh	Earthjustice
Melissa	Collier	CCAPHF
Paulina	Lopez-Santos	Environmental Council of the States
Denise	Abdul-Rahman	NAACP
Gilbert	Bandy	Mi JustUs
Elyse	Salinas	US EPA
Emily	Gulick	Jacobs Engineering
Stephanie	Tepperberg	National Park Service
Ngozi	Nwosu	City of Dallas
Stephanie	Lewis	Department of Toxic Substances Control
Denise	Bennett	Louisiana Department of Environmental Quality
Rachel	Meidl	Baker Institute for Public Policy
Edlynzia	Barnes	EPA
Kim	Balassiano	USEPA
Emma	Cheuse	Earthjustice
John	Kinsman	Edison Electric Institute
Patricia	Kennedy (she/her)	Cal EPA/DTSC
Sean	Thackurdeen	DDMF
Tami	Thomas-Burton	EPA
ADRIANE	BUSBY	Friends of the Earth
Anthony	Centrella	Huntington peace
Walker	Wieland	Cal EPA
Leo	Goldsmith	ICF
Bretaina	Brigham	Youth Help
Emily	Zvolanek	Argonne National Laboratory
Don	Jodrey	The Alliance for the Great Lakes
Amy	Teague	USGS
Steven	Carbó	Funder Collaborative on Oil and Gas
Gretchen	Sosbee	US Navy
Frida	Mendez	D.C. Legislative and Regulatory Services
Analisa	Toma	National Association of Chemical Distributors
Marco	Hernandez	COPAL MN
Mary	Walker	Gulf Coast Ecosystem Restoration Council

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Margaret	Walls	Resources for the Future
Paul	Mohr	HUD
Francisco	Donez	US EPA Office of Air and Radiation
Pam	Nixon	None
Gregg	Newsom	Detroit People's Platform
John	Mueller	Supporter, Fluoride Action Network, American Environmental Health Studies Project
Diane	D'Arrigo	Nuclear Information and Resource Service
Daniel	Savery	Earthjustice
E	Bemis	self
Robert	Dinterman	USDA
Jane	Williams	California Communities Against Toxics
Derrick	Sebree	Michigan School of Psychology
Say	Yang	Center for Earth, Energy and Democracy
Alex	Guillen	POLITICO
Jennifer	Kanine	Pokagon Band of Potawatomi
Lyndsie	Un	Kansas Department of Health and Environment
Kara	McCauley	Association of Clean Water Administrators
Cynthia	Peurifoy	Retired
Ali	Dominguez	Deloitte
Anjuli	Jain Figueroa	DOE
Stephanie	Meadows	American Petroleum Institute
Cheryl	Watson	Blacks In Green
Ximena	Diaz Velasco	National Park Service
Lori	Dowil	Corteva
Arlene	Galindo	San Joaquin Urban Native Council
Erin	Broussard	AEPCO
Nayyirah	Shariff	Flint Rising
Marisa	Valdez	From Here
Jeanne	Holm	City of Los Angeles
Luciana	Paz	USDA-APHIS
Linda	Reinstein	Asbestos Disease Awareness Org
Steve	Taub	U-Haul
Bria	Crawford	Environmental Protection Agency
Brad	Satterwhite	California Department of Housing and Community Development
Fred	Jenkins	US EPA
Alice	Kersting	FEMA Region 8
Jennifer	Podbesek	OPNAV
Hale	Stolberg	Lewis-Burke Associates
Carolyn	Nelson	US DOT-FHWA

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Gabriela	Alcazar	Michigan Environmental Justice Organization
Kelly	Poole	Environmental Council of the States
Beth	Graves	ECOS
Andrea	Thi	DOJ
Richard	Page	Earth House center
Brandi	Crawford-Johnson	Ej Activist
Brian	Holtzclaw	EPA
Leanne	Nurse	The Nature Conservancy
SHERYL	STOHS	US EPA
Kevin	Kephart	USDA NIFA
Blakely	Hildebrand	Southern Environmental Law Center
Leatra	Harper	FreshWater Accountability Project
Guy	Reiter	Menikanaehkem Inc.
Astrika	Adams	SBA Office of Advocacy
Liat	Meitzenheimer	Fresh air Vallejo
Karina	Castillo	Miami-Dade County
Alexandra	Campbell-Ferrari	The Center for Water Security and Cooperation
Ananya	Bhattacharya	Industrial Economics
HNIN	AUNG	CARB
Kameron	Kerger	U.S. Digital Service
Madison	Rivers	Deloitte
Anita	Basavaraju	None
Frank	Prewoznik	Irvine Ranch Water District
Samarys	Seguinot Medina	Alaska Community Action on Toxics (ACAT)
Adam	Wagner	News & Observer
Meghan	Langley	City Point Partners, LLC
Diane	Lauricella	Norwalk Zero Waste Coalition
Julia	Anastasio	Association of Clean Water Administrators
Biidaaban	Reinhardt	We The People Michigan
Gina	Shirey	Alaska Department of Environmental Conservation
kitty	craig	the wilderness society
Richard	Holman	Westside Coalition
Robyn	Grange	Argonne National Laboratory
Laura	Schauer	ILLUME Advising, LLC
Grace	Smith	CEQ
Denise	Sarchiapone	B&D Environmental Consulting
Meredith	Perreault	Syracuse University Environmental Finance Center
Roberta	Ezike	EPA
Cristina	Villa	Department of the Interior
Yukyan	Lam	NRDC

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Liz	Lee	Our Children's Trust
Mara	Yarbrough	New Mexico Environmental Law Center
Chante	Lee	Green 2.0
Mark	Magaña	GreenLatinos
Amber	Garcia-Aranoz	US EPA
Karla	Raimundi	VT Agency of Natural Resources
Elena	Hawkins	Michigan Poor People's Campaign
Queen	Quet	Gullah/Geechee Sea Island Coalition
Alison	Beason	Port of Seattle
Alex	Gamble	Indian Health Service
Ellie	Okada	Boston Cancer Policy Institute/ Harvard Library
Hien	Ngo	Hien Ngo
Jerimiah	Sanders	HUD
Jane	Flegal	WHCPO
Roshunda	Ivory	HHS
Paige	Lieberman	EPA
Matthew	Silverman	DOJ, USAO, EDNY
Shantell	Bingham	Climate Justice Alliance
Patricia	Spitzley	RACER Trust
Manna Jo	Greene	Hudson River Sloop Clearwater
Debra	Tellez	U.S. EPA
Kate	Gill	GSA
Jesse	Deer In Water	Citizens Resistance At Fermi Two (CRAFT)
Michael	Waldon	private citizen
Lynn	Roper	Alabama Department of Environmental Management
Cliff	Villa	University of New Mexico
Garry	Harris	Center for Sustainable Communities
Amanda	Dwellely	ILLUME Advising
Andrew	Taylor	EPA Region 3
Cynthia	Herrera	n/a
Tina	Davis	US Environmental Protection Agency
Russ	Rivera	Idaho Transportation Department
William	Patterson	East Bay Municipal Utility District
Donald	Osborne	Fresh Air Vallejo
Stephanie	Bilenko	Nuclear Energy Information Service
Laura	Baker	Family card Libby, ADAO, CureMeso, Justmomsstl
Suzanne	Yohannan	Inside EPA
Monisha	Shah	NREL
Pena	Nora	ITDP
Alice	Sung	Greenbank Associates

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Danielle	Simms	WE ACT for Environmental Justice
Chris	Pressnall	Illinois EPA
Joe	Womack	Africatown CHESS
Anthony	Paciorek	Michigan United
Charla	Gaddy	Self
Gregory	Norris	DBA: A.C.E.S. 4 Youth=Area Consortium of Educational Services For Our Youth
Nic	Nunn-Faron	BDO USA, LLP
Jessie	Stolark	Great Plains Institute
Jeff	Knishkowsy	USDA
Freddie	Ortiz	City of Dallas
Reanna	Bettencourt	Tacoma Pierce County Health Department
Melissa	Newton	self
Kathryn	Super	EJHA
Jordan	Barton	Our Children's Trust
Rachel	Jordan	THEA
Kim	Hunter he/him	Engage Michigan
Lucas	M Brown	EOP
Krista	McIntyre	Law Firm
Ann	Floor	Utahns for Better Transportation
Lisa	Cooke	FAA
Lew	Daly	Roosevelt Institute
Janice	Horn	Tennessee Valley Authority
Jackson	Green	Stop the Polluting Port
Alyssa	Maring	ASD
Sharmila	Murthy	CEQ
Patricia	Taylor	Environment and Human Health, Inc. (EHHI)
Sandi	Spiegel	State of Delaware Division of Public Health
Cynthia	Teel	Lathrop GPM
LesLee	Jackson	North side Minneapolis
Sachin	Shah	USGS
LaShaya	Darisaw	Mi JustUs
Katie	Lambeth	EGLE
Gabrielle	Englander	Appalachian School of Law
Eve	Granatosky	Lewis-Burke Associates LLC
Sandra	Fox	Churchill Future
Scott	Smizik	VDOT
Tania	Ellersick	USDA Forest Service
Michelle	Martinez	MEJC
Mathilde	Saada	Baker Institute

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Phillip	Washington	USDA
Joel	Gurin	Center for Open Data Enterprise
Jennifer	Valenstein	Brightwater Strategies Group
Jeannie	Economos	Farmworker Association of Florida
David	Lonnberg	None
Jacqueline	Shirley	Rural Community Assistant Corporation
Christina	Bowman	University of Maryland
Noah	Saperstein	Red Cliff Band of Lake Superior Ojibwe
Ariela	Zycherman	NOAA
Jeffrey	Ross	Kansas Department of Health and Environment
Amanda	Aguirre	Rooted & Reimagined Strategies
Lindsay	McCarl	U.S. Navy
Stephanie	Hammonds	WVDEP-DAQ
Sarah	Sapirstein	ENS Resources Inc.
Dean	Scott	Bloomberg
Chloe	Desir	Ironbound Community Center
Anahi	Naranjo	Center for Earth, Energy and Democracy
Vidya	Balasubramanyam	IDNR Coastal Management Program
Mindy	Clements	EPA
Renee	Cail	BREDL
Erniko	Brown	Organized Uplifting Resources & Strategies (OURS)
Jessica	Cahail	Azavea
Courtney	Rutledge	Legal Aid of Western Ohio
Alessandro	Molina	EPA
Neeraja	Erraguntla	American Chemistry Council
Miranda	Maldonado	AECOM
Miguel	Juarez	Val Verde Neighborhood Association
Stephen	Buckley	OpenChatham.com
Loan	Nguyen	US EPA
Neetin	Gulati	We Act For Environmental Justice
LINDA	Giles	Transcription Etc.
Jennifer	Holden	Mangan Park Neighborhood Association
Sherri	White-Williamson	Environmental Justice Community Action Network
Laura	Rubin	Healing Our Waters--Great Lakes Coalition
Akshita	Sivakumar	University of California San Diego
Dick	Mason	ShinTech
Belinda	Joyner	Concern Citizens of Northampton County
Enrique	Valdivia	Texas Rio Grande legal aid, inc
Vikki	Prettyman	SERCAP, Inc.
Kaitlin	Toyama	US DOJ, Civil Rights Division

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Kari	Fulton	Climate Justice Alliance
Portia	Shepherd	Blackbelt women rising
Barry	F. Boyd	Partner with Sacramento Environmental Justice Coalition
Cynthia	Ferguson	US DOJ/ Environment & Natural Resources Division
Angel	Deem	Department of Transportation
Shalanda	Wright	Black Women Rising
Natalie	Thoresen	University of Wisconsin, Madison
Latasha	Lyte	USDA-Forest Service
Joel	Porter	CleanAIRE NC
Jeffrey	Schub	Coalition for Green Capital
Steven	Olmsted	Arizona DOT
Ora	Giles	Transcription, Etc., LLC
Jane	Kloeckner	Citizen
Melanie	Reyes	Ironbound Community Corporation
Brent	Newell	Public Justice
Ted	Pickett	Eastwick United
Will	Hendrick	North Carolina Conservation Network
Lucy	Stanfield	US Environmental Protection Agency - Region 5
Robin	Lisowski	Slipstream
Leslie	Friedlander	Safer Choice
Rebecca	Long	OC San
LESLIE	RITTS	National Environmental Development Association's Clean Air Project
Alane	Herr	IEPA
Jane	Mantey	Ceres
Hillary	Thomas	Midwest Decarbonization Coalition
Karen	Lowe	CEQ
Marva	King	EPA Retiree
Ashley	Fisseha	US EPA Region 5 SEMD
Elisabeth	Grinspoon	USDA Forest Service
Shelby	Switzer	US Digital Service
Elise	Doucette	MPCA
Anne	Heard	Atlanta Metropolitan State College
Denzel	Burnside	Dogwood Alliance
Liz	Anderson	Dakota Resource Council
Michael	Dexter	SSDN
John	Doherty	IUPAT
Kelly	Crandall	Colorado Public Utilities Commission
Mimi	Martinez	Council on Environmental Policy
Kim	Tucker-Billingslea	GM

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Michel	Lee	Council on Intelligent Energy & Conservation Policy (CIECP)
Dorothy	Owen	Westpointe Community Council
Danielle	Mercurio	VNF
Travis	Voyles	Senate EPW
Luke	Wilson	20006
Jared	Rothstein	Consumer Brands Association
Fern	Hickey	University of North Carolina a Chapel Hill Department of City and Regional Planning
Nina	Wimberley	Michigan LCV
Katy	Hansen	EPIC
Renee	Stirnemann	OPH
Matthew	Young	BeechWood Inc.
Mariah	Lighthall	KDHE- Bureau of Air
David	Marron	American Waterways Operators
MELISSA	MAYS	Flint Rising
Daisha	Williams	Clean AIRE NC
Eunice	Lee	None
Carolyn	Bryan	HHS-OASH
Amina	Grant	USEPA/ORISE
Juliana	Ojeda	Green 2.0
Victor	Gavilanes	ICC
Marie	Skaf	Deloitte
Wendy	Wallace	Deloitte
Angela	Chalk	Healthy Community Resources & Advocacy, Inc., DBA
Gloria	Vaughn	EPA
Lydia	Jennings	Myself
Margaret	Palmoa-Pavel	Earth House Inc.
Sharon	Cooperstein	US EPA
Simon	Bunyan	Yale School of the Environment
Stacia	Ryder	University of Exeter
Nicole	Hill	Peoples Water Board Coalition / Michigan Welfare Rights
Nakisa	Glover	Hip Hop Caucus
Kathryn	Semmens	Nurture Nature Center
Audris	Torres	AUDRIS B. TORRES ONLY
Valerie	Amor	Drawing Conclusions LLC
Magdalene	Sanders	Nisqually Indian Tribe
Bonnie	Hulkower	US HUD
Dan	Hammer	Earthrise Media

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Delilah	Jaworski	US Forest Service
Patricia	Charles	CCOM
Kelsey	Brugger	E&E News
Tim	Holbrook	None
Marcell	Simmons	None
Sarahna	Moyd	Emory
Alan	Bacock	USEPA Region 9
Ivonne	Santiago	University of Texas at El Paso
Holmes	Hummel	Clean Energy Works
Marcella	Joshlin	Wisdom of the Elders
Cara	Cook	Alliance of Nurses for Healthy Environments
Ayah	Hassan	Ramboll
Mari	Ojeda	Fresh Energy
Brian	Ratcliffe	USDA Forest Service
Chuck	Melton	HUD
Shradha	Iyer	United States EPA
Nina	Morgan	GASP
Leticia	Ablaza	Air Alliance Houston
Tamia	Booker	Rooted and Reimagined Strategies
Kimberly	Crisafi	Environmental Protection Agency - OMS
Akanke	Hill	Soulardarity
Jan-Michael	Archer	University of Maryland School of Public Health
Matt	Harlan	J. Connor Consulting
Rita	Harris	Sierra Club
Tracey	Lewis	Public Citizen
Zoe Ann	Olson	Intermountain Fair Housing Council, Inc.
Jennifer	Park	EPA
Patrick	Bigsby	Iowa Department of Natural Resources
Jeanna	Murphy	King & Spalding, LLP
William	Daly	City of Baltimore
Joanna	Ratigan	Lewis-Burke Associates
Terrence	Hines	Socially Responsible Sustainable Business Consultants Ltd
PHILIP	DEITCH	NAACP ST LOUIS COUNTY
Christy	Haven	HNTB
Sarah	Eisenlord	LanzaTech
D	Wu	NYS Office of the Attorney General
Joyce	Harant	Central Illinois Healthy Community Alliance
Xavier	Barraza	Valle de Oro National Wildlife Refuge
Eric	Ini	Michigan United

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Kierra	Goosby	American Forest Foundation
Tim	Green	EPD
Michael	Jensen	Waste Management
Channing	Shepherd	US EPA
Leah	Hartung	Clean Power Lake County
Taylor	Smith-Hams	Blue Water Baltimore
Timothy	Gields	MDB, Inc.
Erica	Le Doux	U.S. EPA - Region 6
Michael	Jackson	Louisiana Department of Health - Office of Public Health
Dominique	Agnew	Student
Pam	McElwee	Rutgers U
Heather	Bolstad	OEHHA, CalEPA
Sheila	Campbell	Fort Wayne Urban League
Emily	Gallo	HNTB
Jordan	Flanagan	AJW, Inc.
Donna	House	Navajo Nation Citizen
Ellisa	Wright	Accenture Federal
Jill	Branby	USEPA
Abigail	Ulman	The National Academies of Sciences, Engineering, and Medicine
Mona	Munroe-Younis	Environmental Transformation Movement of Flint
Bryan	Lewis	EcoWorks
Larry	Taylor	Kentucky Department for Environmental Protection
Flozelle	Roberts	City Of Port Arthur
Paul	Kuhne	Center for Open Data Enterprise
Maya	Batres	ClimateWorks Foundation
Jill	Wishart	WA Dept of Agriculture
Theodora	Bird Bear	Self
Clayton	Aldern	Grist
Benjamin	Yawakie	NDN Collective
Rebecca	Dudley	None
Susan	Holdsworth	USEPA Office of Water
Pamela	Perez	California State University, Northridge
Diane	Wade	US EPA
Jeremy	Hancher	EMAP - Widener University SBDC
Justin	Schott	University of Michigan
Mandy	Lee	NAACP
Suzanne	Dorsey	Maryland Department of the Environment
Jeff	Burkett	Liberty/Empire
Ashley	Borrego	None

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Cedric	Glover	Louisiana House of Representatives
Haley	Mullen	University of Michigan School for Environment and Sustainability
EJ	Rodriguez	DTSC
Christina	Lara	Coyote Valley Band of Pomo
Teresa	Romero	Native Coastal Action Network
Madeline	Dillner	Oklahoma Corporation Commission
Ericka	Farrell	EPA
Monica	Fabbi	IFHC Intermountai Fair Housing Council
Adaora	Ifebigh	NRECA
Barbara	Warren, RN, MS	Director/ Citizens' Environmental Coalition
Ariel	Gold	USDOT
Liam Edmund	O'Rourke	Tennessee Department of Health
Angela	Seligman	ND Department of Environmental Quality
Mayo	Saji	Earthjustice
Anne	Baker	USACE
Lin	Nelson	The Evergreen State College
Isabel	Wood	Duke University; Rachel Carson Council
Veronica	Johnson	Faith in Place
Daisy	Pizana	Sacramento Environmental Justice Coalition
Marisa	Tricas	City of Roseville
Emily	Lane	University of Central Arkansas
Stephany	Mgbadigha	Air Alliance Houston
Janet	Pritchard	Milwaukee Water Commons
Tom	White	Eden Housing Inc.
Sophia	Lajaunie	USAID
Eman	Williams	Louisiana Department of Health
Jennifer	Leider	US EPA Region 10 Lab
Kelly	Maguire	USDA
Stephen	Buckley	Int'l Assn for Public Participation (U.S.)
Megan	Smith	shift7
Garry	Harris	Center for Sustainable Communities
Jesse	Wall	Jet Affiliations
Cynthia	McOliver	US EPA
Mysti	Babineau	Red Lake Citizen
Barbie	Prine	US Navy
Brian	Boose	AECOM
Julia	Eagles	Institute for Market Transformation
Megan	McBride	Choctaw Nation of Oklahoma
Mia	Arvizu	citizen

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Helen	Serassio	U.S. EPA
Andrew	Baca	EPA
Breana	Nehls	American Society of Adaptation Professionals
Emily	Foxhall	Houston Chronicle
Danielle	Koonce	EJCAN
Clair	Hopper	Citizen
Olga	Naidenko	ENVIRONMENTAL WORKING GROUP
Todd	Reynolds	Groundwork New Orleans
Vanitha	Murthy	None
Kirsten	Campbell-Davenport	Melanated Maternity Essentials LLC.
Brian	Bellgraph	Pacific Northwest National Laboratory
Jessica	Norriss	Environmental Policy Innovation Center
Gabe	Miller	Prairie Island Indian Community - Land and Environment Dept.
Chris	Whitehead	ESI
Kelley	Raymond	Daikin U.S.
Rupa	Basu	Cal EPA/OEHHA
Suzanne	Baker	University of Michigan
Jenna	Dodson	WVU
Connor	Kippe	Toxic Free NC
Julianne	Kurdila	Cleveland-Cliffs Inc.
Claudette	Walker	EPA-GMD
Francie	Jaffe	City of Longmont
Susan	Alzner	shift7
J.D.	McCrary	Georgia ForestWatch
Jerome	Felipe	CEO Zabal Inc Zabel Ltd/LLC
Jasmine	Graham	WE ACT for Environmental Justice
Laurie	Gelman	Department of Justice
Sandy	Hertz	Maryland Department of Transportation
Patrick	Thompson	WHOLE KINGDOM WELLNESS
Monica	Espinosa	EPA Region 7
Clarita	Lefthand-Begay	University of Washington
Renee	Hoyos	VA DEQ
Maricela	Perryman	San Juan Bay Estuary Program
Madeleine	Mulcare	Salem State University
Ximena	Cruz Cuevas	DEQ
Geraldine	Redmond	City of Flint
Paloma	Pavel	Earth House Center
Bobby	Jones	Down East Coal Ash Environmental and Social Justice Coalition
Sandra	Baird	MassDEP

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Caitlin	McHale	National Mining Association
Eyota	AlTamaha	Coosa Nation
Muskaan	Makkar	UofSC
kim	jones	EPA
Rachel	Roberts	American Mushroom Institute
LINDA	Giles	Transcription, Etc. LLC
Sarah	Kempfer	Alice Ferguson Foundation
Natilee	Festa	Stanford Woods Institute for the Environment
Kevin	Meindl	Chemung County
Kathleen	Kirkpatrick	Hometown Action / Organizing Project
Louise	Kitamura	USEPA
Sarah	Miller	LSU
Sarah	Forbes	CEQ
Adler	Miserendino	Lewis Burke Associates
Charles	Mason	Pacific Gas and Electric
Virginia	Sanders	National Sierra Club
Ilana	Shapiro	EPA
Luc	Hebou	USDA
Jackie	Toth	Good Energy Collective
Ethan	Aumann	US DOJ
Millie	Piazza	Dept. of Ecology
Harvey	Cantor	Environmental Justice
Casey	Kalman	Union of Concerned Scientists
Shanika	Amarakoon	ERG
Parker	Cohen	Earth House Center
Morgan	Capilla	US EPA
Pat	Bryant	Hold Em Accountable NOLA
Lacey	Gotreaux	Louisiana Department of Environmental Quality
Holly	DeJong	EPA
Arnold	Stovell	Liberty State Park for All
Emily	Joynt	North Dakota Department of Environmental Quality
Boris	Ricks	CSUN
Erin	Stanforth	Mecklenburg County
Kerry	Duggan	SustainabiliD
Gaby	Wagener-Sobrero	City of Chicago, Mayor's Office
Loaela	Hammons	GSA PBS
Susan	Durden	Institute for Water Resources
Julie	Simpson	Nez Perce Tribe Air Quality Program
Drue	Pearce	Holland & Hart LLP
Valeria	Rincon	NRDC

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
Christene	Kimmel	Rice University - Baker Institute
Nick	Rabinowitsh	Council on Environmental Quality
Felipe	Aguirre	Comité Pro Uno I'm
Grace	Olson	NGO/Non-Profit
Caroline	Beckman	Climate Resilient Communities
Hannah	Glosser	HR&A
Kristin	Aldred Cheek	Stericycle
Jenn	Tribble	TDEC
Monica	Palmeira	California Public Utilities Commission
Adare	Brown	Architecture Lobby
Sharon	Lewis	CT COALITION FOR EJ
Carmen	Valdez	HEAL Utah (Healthy Environment Alliance of Utah)
John	Brakeall	Pennsylvania Dept. of Environmental Protection
Rahul	Misra	CarbonCure
David	Ailor	American Coke and Coal Chemicals Institute -
Alex	Rodriguez	DCG Public Affairs
Bianca	Valdez	Kearns & West
Adam	Cole	RCO
Gabriela	Baeza-Castaneda	USEPA
Bryan	Davidson	TDEC - Office of Policy and Sustainable Practices
Maggie	Thelen	WI DHS
Margarita	Asiain	APHA
Prerna	Bhat	U.S. Senate
Nancy	Weber	US EPA
Harrilene	Yazzie	DOI BIA Alaska Region
Heather	Croshaw	St. Croix Environmental Association (St. Croix, USVI)
Naz	Ahmed	Consumer Brands Association
Michael	Reiner	DOE
Vanessa	Gordon	USDA
Luna E.	Phillips	Gunster Law firm
Mia	South	EPA
lyn	Stoler	UCLA Center for Healthy Climate Solutions
Jose	Almanzar	Beveridge & Diamond, P.C.
Danny	Llerenas	Self
Jeanette	Mitchell	Athena
Kate	Zielke	NCTCOG
Ana	Valdez	NC Conservation Network
Krystal	Hepburn	EnviroStewards Consulting LLC
Sara	Miller	EPA

WHEJAC Public Meeting Attendee List November 17, 2021		
First Name	Last Name	Organization
John	Byrd	Miller/Wenhold Capitol Strategies
Nicole	Miller	Newark Environmental Commission
Joni	Arends	Concerned Citizens for Nuclear Safety
Steph	Kim	EPA
Alison	Cassady	U.S. EPA
Richard	Walker	Bridging The Gap In Virginia
Rebecca	Curry	Earthjustice
Elizabeth	Cole	Montana DEQ
Angelina	Rahimi	Aura Planning Inc.
Sophia	Chan	Columbia University
Armando	Davila	Unaffiliated
Elise	Rasmussen	Washington State Department of Health
Beth	Gibbons	American Society of Adaptation Professionals
Demitrous	Blount	US DOE
Lauren	Owan	Black Millennials 4 Flint
Catrice	Jefferson	Environmental Protection Agency
Laura	Watchempino	Multicultural Alliance for a Safe Environment
Tatiana	Eaves	NWF
Madeleine	Scammell	Boston University
Barbara	Faison	NCMSUAA

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Sarah	Bailey	Bridges into the Future/ Community Based Organizations Partners (CBOP)
Taaka	Bailey	MDEQ
Theresa	Romanosky	Association of American Railroads
Lorna	Withrow	NCDHHS, DPH, OSWP
Rebecca	Stanfield McCown	National Park Service
Mariah	Lighthall	KDHE- Bureau of Air

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
David	Marron	American Waterways Operators
Gretchen	Kroh	USDA
Leigh	Ford	Snake River Alliance
Katherine	Diaz	None
Melissa	Muroff	Delaware County District Attorney's Office
Olugbenga	Ajilore	USDA
Marie	Skaf	Deloitte
Matthew	Greene	U.S. Fish and Wildlife Service
Joan	Wesley	Jackson State University
Sharon	Cooperstein	US EPA
Lauren	Childs-Gleason	NASA
William	Farmer	NOAA/CPO
Audris	Torres	AUDRIS B. TORRES ONLY
Temi	Afolabi	Center for Open Data Enterprise
Nicolette	Fertakis	EPA
Carl C	Anthony	Earth House Inc.
Kelsey	Brugger	E&E News
Alan	Bacock	USEPA Region 9
Anita	Cunningham	Robeson County Cooperative for Sustainable Development
Ivonne	Santiago	University of Texas at El Paso
Toshia	King	US EPA
Donna	Chavis	Friends of the Earth
Diana	Umpierre	None
Julie	Jimenez	None
Timothy	Roberts	U.S. EPA
Mike	Moltzen	USEPA
Kim	Lambert	U.S. Fish and Wildlife Service
Ericka	Farrell	EPA
Valerie	Rangel	nmelc.org
Crystal	Upperman	AECOM
Shradha	Iyer	United States EPA
Katherine	Mlika	USDS
Jessica	Loya	Rooted & Reimagined Strategies
Kimberly	Crisafi	Environmental Protection Agency - OMS
May	Bhetraratana	California Air Resources Board
Zoe Ann	Olson	Intermountain Fair Housing Council, Inc.
Kandyce	Perry	NJ Department of Environmental Protection
Jeanna	Murphy	King & Spalding, LLP
Dave	Arndt	Self
Claudia	Nierenberg	DOC/NOAA Research

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Patrick	Beckley	US EPA
Carolyn	Marsh	Save Whiting and Neighbors (S.W, A.N.)
Joyce	Harant	Central Illinois Healthy Community Alliance
Eric	Ini	Michigan United
Dariu	Sivin	UAW
Bonita	Johnson	USEPA
Romona	Taylor Williams	MCUP
Timothy	Gields	MDB, Inc.
Peter	Shields	ICF
Reginald	R3EPA	EPA
John	Oluwaleye	Gender-Based violence as a public Health Issue
Olivia	Lopez	Ocean Conservancy
Eric	Buck	SAIC/Navy
Gregory	Simpson	Nauraushaun Presbyterian Church
Ray	Hall	Bmforflint/UNA-USA
David	Lonnberg	shift7
Marilynn	Marsh-Robinson	EDF
E Hill	De Loney	Flint Odyssey House, Inc.
Maya	Nye	Coming Clean
Christina	Chiappetta	GSA
Ryan	Hathaway	Department of the Interior
Paul	Kuhne	Center for Open Data Enterprise
Ellen	Manges	US EPA
Henry	Mayer	CRESP - Vanderbilt University
Krystal	Laymon	WH
Rebecca	Dudley	None
Stephanie	Herron	EJHA
Joe	Tiago	EPA
Eric	DAlessio	Private Citizen
Elizabeth	Ross	Gunster
Amelia	Gooding Cheek	Illinois Environmental Regulatory Group
Stefanie	Tsosie	Earthjustice
Morgan	King	West Virginia Rivers Coalition
Ashley	Borrego	None
Kenyatta	Miles	Shell
Danielle	Shannon	EPA
Julian	Reyes	U.S. Department of Agriculture
Paulina	Lopez-Santos	Environmental Council of the States
Emily	Gulick	Jacobs Engineering
Stephanie	Tepperberg	National Park Service
Ngozi	Nwosu	City of Dallas

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Stephanie	Lewis	Department of Toxic Substances Control
Christina	Lara	Coyote Valley Band of Pomo
Denise	Bennett	Louisiana Department of Environmental Quality
Chola	Richmond	USDA
Kim	Balassiano	USEPA
John	Kinsman	Edison Electric Institute
Leo	Goldsmith	ICF
Emily	Zvolanek	Argonne National Laboratory
Barbara	Warren, RN, MS	Citizens' Environmental Coalition
Steven	Carbó	Funder Collaborative on Oil and Gas
Bernice	Smith	EPA
Frida	Mendez	D.C. Legislative and Regulatory Services
Marco	Hernandez	COPAL MN
Margaret	Walls	Resources for the Future
Francisco	Donez	US EPA Office of Air and Radiation
John	Mueller	Supporter, Fluoride Action Network, American Environmental Health Studies Project
Diane	D'Arrigo	Nuclear Information and Resource Service
Robert	Dinterman	USDA
Daisy	Pizana	Sacramento Environmental Justice Coalition
Stephany	Mgbadigha	Air Alliance Houston
Jennifer	Kanine	Pokagon Band of Potawatomi
Lyndsie	Un	Kansas Department of Health and Environment
Karen	Sullivan	US EPA
Erik	Wright	DNREC
Kara	McCauley	Association of Clean Water Administrators
Tom	White	Eden Housing Inc.
Sophia	Lajaunie	USAID
Ali	Dominguez	Deloitte
Suzanne	Thornsbury	USDA
Anjuli	Jain Figueroa	DOE
Stephanie	Meadows	American Petroleum Institute
Megan	Smith	shift7
Erin	Broussard	AEPCO
Nayyirah	Shariff	Flint Rising
Chitra	Kumar	USEPA
Bria	Crawford	Environmental Protection Agency
Brad	Satterwhite	California Department of Housing and Community Development
Fred	Jenkins	US EPA
Alice	Kersting	FEMA Region 8
Jennifer	Podbesek	OPNAV

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Ayako	Nagano	NEJAC
Lauren	Rayburn	USDA Rural Development
Gabriela	Alcazar	Michigan Environmental Justice Organization
Kelly	Poole	Environmental Council of the States
Beth	Graves	ECOS
Andrea	Thi	DOJ
Richard	Page	Earth House center
Brian	Holtzclaw	EPA
Leanne	Nurse	The Nature Conservancy
Sheryl	Stohs	US EPA
Kevin	Kephart	USDA NIFA
Lavar	Thomas	U.S. Environmental Protection Agency
Andrew	Baca	EPA
Liat	Meitzenheimer	Fresh air Vallejo
Karina	Castillo	Miami-Dade County
Vanitha	Murthy	None
Ananya	Bhattacharya	Industrial Economics
Kameron	Kerger	U.S. Digital Service
Frank	Prewoznik	Irvine Ranch Water District
Gabe	Miller	Prairie Island Indian Community - Land and Environment Dept.
Meghan	Langley	City Point Partners, LLC
Chris	Whitehead	ESI
Gina	Shirey	Alaska Department of Environmental Conservation
Laura	Schauer	ILLUME Advising, LLC
Susan	Alzner	shift7
Denise	Sarchiapone	B&D Environmental Consulting
Meredith	Perreault	Syracuse University Environmental Finance Center
Cristina	Villa	Department of the Interior
Yukyan	Lam	NRDC
C. Sequoia	Erasmus	Ctc
Mara	Yarbrough	New Mexico Environmental Law Center
Matthew	Jurjonas	USGS
Amber	Garcia-Aranoz	US EPA
Queen	Quet	Gullah/Geechee Sea Island Coalition
Alison	Beason	Port of Seattle
Alex	Gamble	Indian Health Service
Ellie	Okada	Boston Cancer Policy Institute/ Harvard Library
Roshunda	Ivory	HHS
Paige	Lieberman	EPA
Patricia	Spitzley	RACER Trust

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Debra	Tellez	U.S. EPA
Kate	Gill	GSA
Sandra	Baird	MassDEP
Eyota	AITamaha	Coosa Nation
Lynn	Roper	Alabama Department of Environmental Management
Amanda	Dwellely	ILLUME Advising
Andrew	Taylor	EPA Region 3
Tina	Davis	US Environmental Protection Agency
William	Patterson	East Bay Municipal Utility District
Stephanie	Bilenko	Nuclear Energy Information Service
Suzanne	Yohannan	Inside EPA
Sarah	Miller	LSU
Monisha	Shah	NREL
Adler	Miserendino	Lewis Burke Associates
Luc	Hebou	USDA
Alice	Sung	Greenbank Associates
Joe	Womack	Africatown CHESS
Anthony	Paciorek	Michigan United
Jessie	Stolark	Great Plains Institute
Jeff	Knishkowsky	USDA
Freddie	Ortiz	City of Dallas
Shanika	Amarakoon	ERG
Kathryn	Super	EJHA
Parker	Cohen	Earth House Center
Morgan	Capilla	US EPA
Jordan	Barton	Our Children's Trust
Rachel	Jordan	THEA
Lucas	M Brown	EOP
Lisa	Cooke	FAA
Lew	Daly	Roosevelt Institute
Janice	Horn	Tennessee Valley Authority
Jackson	Green	Stop the Polluting Port Coalition
Sharmila	Murthy	CEQ
Patricia	Taylor	Environment and Human Health, Inc. (EHHI)
Erin	Stanforth	Mecklenburg County
Sandi	Spiegel	State of Delaware Division of Public Health
Cynthia	Teel	Lathrop GPM
Gaby	Wagener-Sobrero	City of Chicago, Mayor's Office
LesLee	Jackson	North side Minneapolis
Loaela	Hammons	GSA PBS
Gabrielle	Englander	Appalachian School of Law

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Eve	Granatosky	Lewis-Burke Associates LLC
Mathilde	Saada	Baker Institute
Phillip	Washington	USDA
Jennifer	Valenstein	Brightwater Strategies Group
Christina	Bowman	University of Maryland
Noah	Saperstein	Red Cliff Band of Lake Superior Ojibwe
Ariela	Zyberman	NOAA
Jeffrey	Ross	Kansas Department of Health and Environment
Amanda	Aguirre	Rooted & Reimagined Strategies
Stephanie	Hammonds	WVDEP-DAQ
Dean	Scott	Bloomberg
Sabrina	Johnson	US EPA
Chloe	Desir	Ironbound Community Center
Carmen	Valdez	HEAL Utah (Healthy Environment Alliance of Utah)
David	Ailor	American Coke and Coal Chemicals Institute -
Bryan	Davidson	TDEC - Office of Policy and Sustainable Practices
Alessandro	Molina	EPA
Sterling	Clemmons	Deloitte
Miguel	Juarez	Val Verde Neighborhood Association
Stephen	Buckley	OpenChatham.com
LINDA	Giles	Transcription Etc.
Jennifer	Holden	Mangan Park Neighborhood Association
Sherri	White-Williamson	Environmental Justice Community Action Network
Akshita	Sivakumar	University of California San Diego
Dick	Mason	ShinTech
Lyn	Stoler	UCLA Center for Healthy Climate Solutions
Kaitlin	Toyama	US DOJ, Civil Rights Division
Danny	Llerenas	None
Michelle	Madeley	USEPA
Michelle	Guck	Federal Government
Portia	Shepherd	Blackbelt women rising
Kate	Zielke	NCTCOG
Barry	F. Boyd	Partner with Sacramento Environmental Justice Coalition
Shalanda	Wright	Black Women Rising
Jeffrey	Schub	Coalition for Green Capital
Ora	Giles	Transcription, Etc., LLC
Jane	Kloekner	Citizen
Melanie	Reyes	Ironbound Community Corporation
Brent	Newell	Public Justice
Beattra	Wilson	usda forest service

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Joni	Arends	Concerned Citizens for Nuclear Safety
Alison	Cassady	U.S. EPA
Lucy	Stanfield	US Environmental Protection Agency - Region 5
Elizabeth	Cole	Montana DEQ
Elise	Rasmussen	Washington State Department of Health
Amy	Kyle	no
Alane	Herr	IEPA
Marva	King	EPA Retiree
Shelby	Switzer	US Digital Service
Catrice	Jefferson	Environmental Protection Agency
Tatiana	Eaves	NWF
Kelly	Crandall	Colorado Public Utilities Commission
Barbara	Faison	NCMSUAA
Kim	Tucker-Billingslea	GM
Michel	Lee	Council on Intelligent Energy & Conservation Policy (CIECP)
Travis	Voyles	Senate EPW
Luke	Wilson	20006
Jared	Rothstein	Consumer Brands Association
David	LaPlante	N/A
Juan	Jhong-Chung	Michigan Environmental Justice Coalition
Fern	Hickey	University of North Carolina a Chapel Hill Department of City and Regional Planning
Nina	Wimberley	Michigan LCV
Katy	Hansen	EPIC
Jeannie	Williamson	US EPA
Ryke	Longest	Duke School of Law
Ryan	Bahnfleth	Esri
Renee	Stirnemann	OPH
Matthew	Young	BeechWood Inc.
Mark	Fite	U.S. EPA - Region 4
Mike	Kolian	US EPA
Emily	Wolf	National Parks Conservation Association
MELISSA	MAYS	Flint Rising
Margaret	Tarrant	Alaska Community Action to Toxics
Daisha	Williams	Clean AIRE NC
Eunice	Lee	N/A
Carolyn	Bryan	HHS-OASH
Amina	Grant	USEPA/ORISE
Juliana	Ojeda	Green 2.0
Victor	Gavilanes	ICC
Wendy	Wallace	Deloitte

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Angela	Chalk	Healthy Community Resources & Advocacy, Inc., DBA Healthy Commune
Alexandra	Gilliland	House of Representatives Staff
Valérie	Lechêne	TAL
Gloria	Vaughn	EPA
Lydia	Jennings	None
Margaret	Paloma-Pavel	Earth House Inc.
Simon	Bunyan	Yale School of the Environment
Joanna	Stancil	USDA/FS
Anthony	D'Souza	Air Alliance Houston
María	Gabriela Huertas Díaz	San Juan Bay Estuary Program - ESTUARIO
Tyler	Jenkins	Senate EPW
Stacia	Ryder	University of Exeter
Sonrisa	Lucero	RMI
Nicole	Hill	Peoples Water Board Coalition / Michigan Welfare Rights Org
Harrison	Humphreys	Air Alliance Houston
Susan	Goldsborough	Families for Clean Air
Nakisa	Glover	Hip Hop Caucus
Nathaly	Agosto Fillion	City of Newark Office of Sustainability
Kathryn	Semmens	Nurture Nature Center
Valerie	Amor	Drawing Conclusions LLC
Magdalene	Sanders	Nisqually Indian Tribe
Bonnie	Hulkower	US HUD
Dan	Hammer	Earthrise Media
Delilah	Jaworski	US Forest Service
Patricia	Charles	CCOM
Christine	Compton	IRWD
Katie	Pappas	Stop the Polluting Port Coalition
Tim	Holbrook	None
Marcell	Simmons	N/A
Sarahna	Moyd	Emory
Victoria	Haber	Lewis Burke Associates
Cozetta	LaMore	Choices Interlinking Alliance
Cynthia	Sanchez	IEPA
Jennifer	Duever	Deloitte
Dawud	Shabaka	Harambee House, Inc. / Citizens for Environmental Justice
Holmes	Hummel	Clean Energy Works
Cheryl	Johnson	People for Community Recovery
Marcella	Joshlin	Wisdom of the Elders

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Cara	Cook	Alliance of Nurses for Healthy Environments
Ayah	Hassan	Ramboll
Mari	Ojeda	Fresh Energy
Jamie	Simmons	MiCAN
Andrea	Everett	MatriARC PROJECTION LLC
Jamesa	Johnson Greer	Michigan Environmental Justice Coalition
Christine	Urban	USEPA
Kristine	Nixon	AIM Solutions
Brian	Ratcliffe	USDA Forest Service
Briana	DuBose	Eco Works
Chuck	Melton	HUD
Nina	Morgan	GASP
Leticia	Ablaza	Air Alliance Houston
Hilary	Zarin	DOI
Tamia	Booker	Rooted and Reimagined Strategies
Akanke	Hill	Soulardarity
Jan-Michael	Archer	University of Maryland School of Public Health
Matt	Harlan	J. Connor Consulting
Rita	Harris	Sierra Club
Tracey	Lewis	Public Citizen
Jennifer	Park	EPA
Patrick	Bigsby	Iowa Department of Natural Resources
William	Daly	City of Baltimore
Glennette	Clark	USDS
Joanna	Ratigan	Lewis-Burke Associates
bonnie	sager	Huntington CALM
Terrence	Hines	Socially Responsible Sustainable Business Consultants Ltd
Tamara	Freeman	EPA R7
Daniel	Padilla Ochoa	Ocean Conservancy
PHILIP	DEITCH	NAACP ST LOUIS COUNTY
Paul	Wilson	Ríos to Rivers
Christy	Haven	HNTB
Sarah	Eisenlord	LanzaTech
D	Wu	NYS Office of the Attorney General
Xavier	Barraza	Valle de Oro National Wildlife Refuge
Kevin	Wickersham	Hudson Center for Community and Environment
Hannah	Bartling	EPA
Kierra	Goosby	American Forest Foundation
Tim	Green	EPD
Ava	Gabrielle-Wise	Southeast Crescent Regional Commission Coalition

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Wendi	Wilkes	Association of State Drinking Water Administrators (ASDWA)
Diane	Sinkowski	USDA
Michael	Jensen	Waste Management
Channing	Shepherd	US EPA
Annie	Chen	OEHHA
Helen	Waqui	Minnesota Pollution Control Agency
Leah	Hartung	Clean Power Lake County
Shalanda	Baker	Department of Energy
Rachel	Patterson	Evergreen Action
Taylor	Smith-Hams	Blue Water Baltimore
Erica	Le Doux	U.S. EPA - Region 6
Richard	Pinkham	Booz Allen Hamilton
Michael	Jackson	Louisiana Department of Health - Office of Public Health
Dominique	Agnew	Student
Julian	Gonzalez	Earthjustice
Pam	McElwee	Rutgers U
Heather	Bolstad	OEHHA, CalEPA
Sheila	Campbell	Fort Wayne Urban League
Emily	Gallo	HNTB
Jordan	Flanagan	AJW, Inc.
Donna	House	Navajo Nation Citizen
Mikel	Maron	Mapbox
Naomi	Yoder	Healthy Gulf
Ellisa	Wright	Accenture Federal
Jill	Branby	USEPA
Crystal	Davis	Alliance for the Great Lakes
Jose	Bravo	Just Transition Alliance
Abigail	Ulman	The National Academies of Sciences, Engineering, and Medicine
Jennifer	Muus	NMED
Catherine	Kemp	University of Michigan
Mona	Munroe-Younis	Environmental Transformation Movement of Flint
Daniel	Nierenberg	NYSDOT
Ann	Miracle	Pacific Northwest National Laboratory
Bryan	Lewis	EcoWorks
Bridget	Weir	US EPA
Larry	Taylor	Kentucky Department for Environmental Protection
Flozelle	Roberts	City Of Port Arthur
Shawn	O'Brien	Troutman Pepper
Maya	Batres	ClimateWorks Foundation

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Gonzalo	Rodriguez	Earthjustice
Kimberly	Doley	Water Wise Gulf South
Jill	Wisehart	WA Dept of Agriculture
Rachel	Jones	National Association of Manufacturers
Will	Patterson	EPA
Theodora	Bird Bear	Self
Bernadette	Mora	Pinoleville Pomo Nation
Clayton	Aldern	Grist
Benjamin	Yawakie	NDN Collective
Garian	Clark	HHS, Office for Civil Rights
Susan	Holdsworth	USEPA Office of Water
Brad	Devereaux	MLive.com
Pamela	Perez	California State University, Northridge
Diane	Wade	US EPA
Jeremy	Hancher	EMAP - Widener University SBDC
Justin	Schott	University of Michigan
Mandy	Lee	NAACP
Cynthia	Mellon	Climate Justice Alliance
Phoebe	Gooding	Toxic Free North Carolina
Suzanne	Dorsey	Maryland Department of the Environment
Matthew	Rumsey	The Center for Open Data Enterprise
Jeff	Burkett	Liberty/Empire
Colleen	Cooley	N/A
Cedric	Glover	Louisiana House of Representatives
Nalleli	Hidalgo	TEJAS
Deena	Tumeh	Earthjustice
Melissa	Collier	CCAPHF
Denise	Abdul-Rahman	NAACP
Gilbert	Bandy	Mi JustUs
Elyse	Salinas	US EPA
Haley	Mullen	University of Michigan School for Environ and Sustainability
EJ	Rodriguez	DTSC
Rachel	Meidl	Baker Institute for Public Policy
Teresa	Romero	Native Coastal Action Network
Edlynzia	Barnes	EPA
Emma	Cheuse	Earthjustice
Patricia	Kennedy (she/her)	Cal EPA/DTSC
Madeline	Dillner	Oklahoma Corporation Commission
Sean	Thackurdeen	DDMF
Tami	Thomas-Burton	EPA

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Ericka	Farrell	EPA
ADRIANE	BUSBY	Friends of the Earth
Anthony	Centrella	Huntington peace
Walker	Wieland	Cal EPA
Monica	Fabbi	IFHC intermountai Fair Housing Council
Bretaina	Brigham	Youth Help
Don	Jodrey	The Alliance for the Great Lakes
Adaora	Ifebigh	NRECA
Amy	Teague	USGS
Gretchen	Sosbee	US Navy
Ariel	Gold	USDOT
Analisa	Toma	National Association of Chemical Distributors
Liam Edmund	O'Rourke	Tennessee Department of Health
Mary	Walker	Gulf Coast Ecosystem Restoration Council
Angela	Seligman	ND Department of Environmental Quality
Paul	Mohr	HUD
Pam	Nixon	None
Mayo	Saji	Earthjustice
Anne	Baker	USACE
Lin	Nelson	The Evergreen State College
Gregg	Newsom	Detroit People's Platform
Isabel	Wood	Duke University; Rachel Carson Council
Daniel	Savery	Earthjustice
E	Bemis	None
Veronica	Johnson	Faith in Place
Jane	Williams	California Communities Against Toxics
Marisa	Tricas	City of Roseville
Emily	Lane	University of Central Arkansas
Janet	Pritchard	Milwaukee Water Commons
Derrick	Sebree	Michigan School of Psychology
Say	Yang	Center for Earth, Energy and Democracy
Alex	Guillen	POLITICO
Eman	Williams	Louisiana Department of Health
Cheryl	Watson	Blacks In Green
Jennifer	Leider	US EPA Region 10 Lab
Ximena	Diaz Velasco	National Park Service
Kelly	Maguire	USDA
Lori	Dowil	Corteva
Arlene	Galindo	San Joaquin Urban Native Council
Stephen	Buckley	Int'l Assn for Public Participation (U.S.)

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Garry	Harris	Center for Sustainable Communities
Marisa	Valdez	None
Jesse	Wall	Jet Affiliations
Jeanne	Holm	City of Los Angeles
Luciana	Paz	USDA-APHIS
Linda	Reinstein	Asbestos Disease Awareness Org
Steve	Taub	U-Haul
Cynthia	McOliver	US EPA
Hale	Stolberg	Lewis-Burke Associates
Carolyn	Nelson	US DOT-FHWA
Mysti	Babineau	Red Lake Citizen
Barbie	Prine	US Navy
Brandi	Crawford-Johnson	Ej Activist
Brian	Boose	AECOM
Blakely	Hildebrand	Southern Environmental Law Center
Julia	Eagles	Institute for Market Transformation
Leatra	Harper	FreshWater Accountability Project
Megan	McBride	Choctaw Nation of Oklahoma
Mia	Arvizu	citizen
Guy	Reiter	Menikanaehkem Inc.
Helen	Serassio	U.S. EPA
Astrika	Adams	SBA Office of Advocacy
Breana	Nehls	American Society of Adaptation Professionals
Emily	Foxhall	Houston Chronicle
Danielle	Koonce	EJCAN
Clair	Hopper	Citizen
Olga	Naidenko	ENVIRONMENTAL WORKING GROUP
Todd	Reynolds	Groundwork New Orleans
Alexandra	Campbell-Ferrari	The Center for Water Security and Cooperation
Kirsten	Campbell-Davenport	Melanated Maternity Essentials LLC.
Brian	Bellgraph	Pacific Northwest National Laboratory
HNIN	AUNG	CARB
Jessica	Norriss	Environmental Policy Innovation Center
Madison	Rivers	Deloitte
Anita	Basavaraju	'-
Samarys	Seguinot Medina	Alaska Community Action on Toxics (ACAT)
Adam	Wagner	News & Observer
Diane	Lauricella	Norwalk Zero Waste Coalition
Kelley	Raymond	Daikin U.S.
Julia	Anastasio	Association of Clean Water Administrators

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Rupa	Basu	Cal EPA/OEHHA
Biidaaban	Reinhardt	We the People Michigan
Suzanne	Baker	University of Michigan
Jenna	Dodson	WVU
Connor	Kippe	Toxic Free NC
kitty	craig	the wilderness society
Richard	Holman	Westside Coalition
Robyn	Grange	Argonne National Laboratory
Julianne	Kurdila	Cleveland-Cliffs Inc.
Claudette	Walker	EPA-GMD
Francie	Jaffe	City of Longmont
Grace	Smith	CEQ
J.D.	McCrary	Georgia Forest Watch
Robertta	Ezike	EPA
Liz	Lee	Our Children's Trust
Chante	Lee	Green 2.0
Mark	Magaña	GreenLatinos
Jerome	Felipe	CEO Zabal Inc Zabel Ltd/LLC
Jasmine	Graham	WE ACT for Environmental Justice
Laurie	Gelman	Department of Justice
Sandy	Hertz	Maryland Department of Transportation
Patrick	Thompson	WHOLE KINGDOM WELLNESS
Karla	Raimundi	VT Agency of Natural Resources
Monica	Espinosa	EPA Region 7
Elena	Hawkins	Michigan Poor People's Campaign
Clarita	Lefthand-Begay	University of Washington
Renee	Hoyos	VA DEQ
Maricela	Perryman	San Juan Bay Estuary Program
Hien	Ngo	Hien Ngo
Jerimiah	Sanders	HUD
Jane	Flegal	WHCPO
Matthew	Silverman	DOJ, USAO, EDNY
Madeleine	Mulcare	Salem State University
Shantell	Bingham	Climate Justice Alliance
Ximena	Cruz Cuevas	DEQ
Manna Jo	Greene	Hudson River Sloop Clearwater
Geraldine	Redmond	City of Flint
Paloma	Pavel	Earth House Center
Bobby	Jones	Down East Coal Ash Environmental and Social Justice Coalition
Jesse	Deer In Water	Citizens Resistance At Fermi Two (CRAFT)

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Michael	Waldon	private citizen
Caitlin	McHale	National Mining Association
Cliff	Villa	University of New Mexico
Muskaan	Makkar	UofSC
Garry	Harris	Center for Sustainable Communities
Kim	Jones	EPA
Rachel	Roberts	American Mushroom Institute
Linda	Giles	Transcription, Etc. LLC
Cynthia	Herrera	n/a
Sarah	Kempfer	Alice Ferguson Foundation
Russ	Rivera	Idaho Transportation Department
Donald	Osborne	Fresh Air Vallejo
Laura	Baker	Family Mbr of: CARD Libby, ADAO, CureMeso, Justmomsstl
Natilee	Festa	Stanford Woods Institute for the Environment
Kevin	Meindl	Chemung County
Kathleen	Kirkpatrick	Hometown Action / Organizing Project
Louise	Kitamura	USEPA
Sarah	Forbes	CEQ
Charles	Mason	Pacific Gas and Electric
Virginia	Sanders	National Sierra Club
Pena	Nora	ITDP
Ilana	Shapiro	EPA
Danielle	Simms	WE ACT for Environmental Justice
Chris	Pressnall	Illinois EPA
Jackie	Toth	Good Energy Collective
Charla	Gaddy	None
Ethan	Aumann	US DOJ
Harvey	Cantor	Environmental Justice
Casey	Kalman	Union of Concerned Scientists
Gregory	Norris	DBA: A.C.E.S. 4 Youth=Area Consortium of Educational Services For Our Youth
Nic	Nunn-Faron	BDO USA, LLP
Reanna	Bettencourt	Tacoma Pierce County Health Department
Melissa	Newton	self
Pat	Bryant	Hold Em Accountable NOLA
Lacey	Gotreaux	Louisiana Department of Environmental Quality
Kim	Hunter he/him	Engage Michigan
Holly	DeJong	EPA
Krista	McIntyre	Law Firm
Ann	Floor	Utahns for Better Transportation
Arnold	Stovell	Liberty State Park for All

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Emily	Joynt	North Dakota Department of Environmental Quality
Boris	Ricks	CSUN
Alyssa	Maring	ASD
Kerry	Duggan	Sustainability
Sachin	Shah	USGS
LaShaya	Darisaw	Mi Just Us
Katie	Lambeth	EGLE
Susan	Durden	Institute for Water Resources
Julie	Simpson	Nez Perce Tribe Air Quality Program
Sandra	Fox	Churchill Future
Scott	Smizik	VDOT
Drue	Pearce	Holland & Hart LLP
Tania	Ellersick	USDA Forest Service
Valeria	Rincon	NRDC
Michelle	Martinez	MEJC
Christene	Kimmel	Rice University - Baker Institute
Nick	Rabinowitsh	Council on Environmental Quality
Joel	Gurin	Center for Open Data Enterprise
Felipe	Aguirre	Comité Pro Uno I'm
Jeannie	Economos	Farmworker Association of Florida
David	Lonnberg	None
Grace	Olson	NGO/Non-Profit
Jacqueline	Shirley	Rural Community Assistant Corporation
Caroline	Beckman	Climate Resilient Communities
Hannah	Glosser	HR&A
Kristin	Aldred Cheek	Stericycle
Jenn	Tribble	TDEC
Lindsay	McCarl	U.S. Navy
Monica	Palmeira	California Public Utilities Commission
Adare	Brown	Architecture Lobby
Sarah	Sapirstein	ENS Resources Inc.
Sharon	Lewis	CT COALITION FOR EJ
Anahi	Naranjo	Center for Earth, Energy and Democracy
John	Brakeall	Pennsylvania Dept. of Environmental Protection
Rahul	Misra	CarbonCure
Vidya	Balasubramanyam	IDNR Coastal Management Program
Mindy	Clements	EPA
Renee	Cail	BREDL
Alex	Rodriguez	DCG Public Affairs
Bianca	Valdez	Kearns & West
Erniko	Brown	Organized Uplifting Resources & Strategies (OURS)

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Adam	Cole	RCO
Gabriela	Baeza-Castaneda	USEPA
Maggie	Thelen	WI DHS
Jessica	Cahail	Azavea
Courtney	Rutledge	Legal Aid of Western Ohio
Neeraja	Erraguntla	American Chemistry Council
Margarita	Asiain	APHA
Prerna	Bhat	U.S. Senate
Miranda	Maldonado	AECOM
Nancy	Weber	US EPA
Harrilene	Yazzie	DOI BIA Alaska Region
Loan	Nguyen	US EPA
Neetin	Gulati	We Act For Environmental Justice
Laura	Rubin	Healing Our Waters--Great Lakes Coalition
Heather	Croshaw	St. Croix Environmental Association (St. Croix, USVI)
Naz	Ahmed	Consumer Brands Association
Michael	Reiner	DOE
Vanessa	Gordon	USDA
Belinda	Joyner	Concern Citizens of Northampton County
Luna E.	Phillips	Gunster Law firm
Mia	South	EPA
Enrique	Valdivia	Texas Rio Grande Legal Aid, Inc
Vikki	Prettyman	SERCAP, Inc.
Jose	Almanzar	Beveridge & Diamond, P.C.
Jeanette	Mitchell	Athena
Kari	Fulton	Climate Justice Alliance
Ana	Valdez	NC Conservation Network
Cynthia	Ferguson	US DOJ/ Environment & Natural Resources Division
Angel	Deem	Department of Transportation
Natalie	Thoresen	University of Wisconsin, Madison
Latasha	Lyte	USDA-Forest Service
Frank	Sylvester	US Environmental Protection Agency
Krystal	Hepburn	EnviroStewards Consulting LLC
Joel	Porter	CleanAIRE NC
Sara	Miller	EPA
John	Byrd	Miller/Wenhold Capitol Strategies
Steven	Olmsted	Arizona DOT
Nicole	Miller	Newark Environmental Commission
Ted	Pickett	Eastwick United
Will	Hendrick	North Carolina Conservation Network
Steph	Kim	EPA

WHEJAC Public Meeting Attendee List November 18, 2021		
First Name	Last Name	Organization
Richard	Walker	Bridging The Gap In Virginia
Rebecca	Curry	Earthjustice
Angelina	Rahimi	Aura Planning Inc.
Robin	Lisowski	Slipstream
Leslie	Friedlander	Safer Choice
Sophia	Chan	Columbia University
Rebecca	Long	OC San
Armando	Davila	Unaffiliated
Leslie	Ritts	National EnvironDevelopment Association's Clean Air Project
Jane	Mantey	Ceres
Beth	Gibbons	American Society of Adaptation Professionals
Hillary	Thomas	Midwest Decarbonization Coalition
Karen	Lowe	CEQ
Ashley	Fisseha	US EPA Region 5 SEMD
Demitrous	Blount	US DOE
Elisabeth	Grinspoon	USDA Forest Service
Elise	Doucette	MPCA
Anne	Heard	Atlanta Metropolitan State College
Lauren	Owan	Black Millennials 4 Flint
Laura	Watchempino	Multicultural Alliance for a Safe Environment
Denzel	Burnside	Dogwood Alliance
Liz	Anderson	Dakota Resource Council
Michael	Dexter	SSDN
John	Doherty	IUPAT
Madeleine	Scammell	Boston University
Mimi	Martinez	Council on Environmental Policy
Dorothy	Owen	Westpointe Community Council
Danielle	Mercurio	VNF

APPENDIX D WRITTEN COMMENTS

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WHEJAC Public Meeting Public Comments for Nov 2021

October 29, 2021

Via Email

Chad Gorman, Acting Regional Administrator
José G. Baquero Tirado, Federal Disaster Recovery Coordinator, Puerto Rico and USVI Federal
Emergency Management Agency Region II – DR-4339-PR
Puerto Rico Joint Recovery Office
50 State Road 165 Guaynabo, PR 00968
FEMA-EHP-DR4339@FEMA.DHS.GOV

RE: Request to Reconsider the Finding of No Significant Impact (“FONSI”) regarding FEMA’s Programmatic Environmental Assessment: Utility Repair, Replacement, and Realignment, Commonwealth of Puerto Rico, DR-4339-PR.

Dear Messrs. Gorman and Baquero Tirado:

Comité Diálogo Ambiental, Inc. (“CDA”), El Puente de Williamsburg, Inc. – Enlace Latino de Acción Climática (“El Puente – ELAC”), Comité Yabucoño Pro-Calidad de Vida, Inc. (“YUCAE”), Alianza Comunitaria Ambientalista del Sureste, Inc. (“ACASE”), Sierra Club Puerto Rico, Inc. (“Sierra Club PR”), Mayagüezanos por la Salud y el Ambiente, Inc. (“MSA”), Coalición de Organizaciones Anti Incineración, Inc. (“COAI”), Amigos del Río Guaynabo, Inc. (“ARG), and Campamento Contra las Cenizas en Peñuelas, Inc., collectively known as Alianza Energía Renovable Ahora (“AERA”),¹ together with the Unión de Trabajadores de la Industria Eléctrica y Riego (“UTIER”), respectfully request that the Federal Emergency Management Agency (“FEMA”) reconsider its highly flawed decision to issue a Finding of No Significant Impact (“FONSI”) for the Programmatic Environmental Assessment: Utility Repair, Replacement, and Realignment in the Commonwealth of Puerto Rico, DR-4339-PR (“PEA”), finalized in August, 2021.

FEMA’s assertion that spending more than \$10 billion on rebuilding Puerto Rico’s electric grid could have “no significant impact” on the environment defies reality, just as FEMA has, for decades, defied Congress’s explicit directives to issue regulations ensuring that taxpayers’ limited funds are spent only on resilient measures that protect communities over the long term. Had FEMA issued the regulations and guidance that Congress specifically required it to promulgate years ago, taxpayers would not face the prospect of pumping \$10 billion into reconstruction of long-distance transmission lines almost certain to be downed, yet again, by hurricanes, earthquakes, rapid vegetation growth, and floods. Such a long-distance transmission system is doubly vulnerable to these hazards as it relies on large, centralized, fossil fueled generation that recent experience has

¹ The environmental and community organizations on behalf of which this Request for Reconsideration is submitted make up the majority of the organizations forming the AERA.

shown to be particularly susceptible to seismic damage, among other disasters. FEMA has failed to comply with its own regulations in spending nearly \$2 billion on rebuilding roads and bridges repeatedly damaged by storms. It is time for FEMA to heed Congress' instructions and stop funding non-resilient infrastructure that will require repeated injections of taxpayer money every time they are, predictably, damaged or destroyed.

Even without those regulations that it should, but does not, have on the books, FEMA has both the authority and the duty to evaluate all reasonable options for how the approximately \$10 billion allocated to rebuilding Puerto Rico's electric grid may be spent, including utilizing the entirety or bulk of those funds for distributed energy resources and battery storage solutions. Rather than issue a FONSI, FEMA should have conducted an Environmental Impact Statement ("EIS") taking into account all such options. Even if FEMA were only required to perform a more limited "Environmental Assessment" ("EA") under the National Environmental Policy Act ("NEPA"), FEMA should have, but did not, evaluate using the funds for distributed energy resources and storage – measures that would build a more resilient, equitable electric system in Puerto Rico while minimizing climate change impacts and promoting environmental justice. By failing to consider those measures, FEMA fell short of NEPA's demands, acted contrary to President Biden's Executive Orders on Climate and Environmental Justice, and ignored Congress' explicit instructions that taxpayers' limited funds be directed *only* to resilient measures that withstand the storms and earthquakes that batter the archipelago.

FEMA must do far better. FEMA should (a) comply with Congress' repeated instructions to direct federal funds into sustainable, resilient rebuilding efforts that will stand up to increasing storms; (b) withdraw its FONSI for the PEA and issue a revised PEA and EIS that evaluates utilizing the over \$10 billion of taxpayer money for sustainable, resilient measures, including distributed energy resources and storage; and (c) reject proposals to use FEMA funds to rebuild vulnerable, costly transmission lines that exacerbate environmental injustice, climate change, and harmful air and water pollution.

FEMA has a unique historic opportunity to counter climate change and build a far more just electric grid in Puerto Rico. FEMA itself recognizes that the "restoration of the Puerto Rico energy grid provides an opportunity for transformational change for the citizens of Puerto Rico, specifically more resilient and sustainable energy."² However, as currently planned, FEMA's actions will not only squander that once-in-a-lifetime opportunity, but they will also exacerbate climate change pollution and environmental injustice. FEMA must change course immediately.

² Letter from Jose Baquero, Fed. Disaster Recovery Coordinator, Joint Recovery Off. Dir. of P.R., Fed. Emergency Mgmt. Agency, to Manuel Laboy, Exec. Dir., Cent. Off. of Recovery, Reconstr. & Resiliency ("COR3"), at 3 (Sept. 24, 2021) [hereinafter "Sept. 2021 FEMA Letter"].

A. Background: After the Hurricanes, Puerto Rico Regulators Require Development of Renewable Energy and Storage, but FEMA Presses Ahead with Business as Usual.

The current Puerto Rico electric grid is dependent on long-distance transmission lines that carry power from multiple centralized fossil fuel power plants in the south of the island, across the mountainous, densely vegetated inland, to the population center around San Juan in the northeast. These elevated lines are vulnerable not only because Puerto Rico experiences frequent and severe storms, but also because Puerto Rico’s mountainous geography tends to increase wind speeds by channeling wind through valleys. In September 2017, two hurricanes hit Puerto Rico: Irma on September 7 and the even more devastating Maria on September 20. These hurricanes caused significant damages to the transmission lines, as well as to distribution lines, poles, towers, and substations. *Almost all transmission lines in the eastern half of the island experienced severe damage.* Even with reinforcements from outside lineworkers, and despite Herculean efforts from its union workforce, PREPA was only able to restore power to half of the island’s customers after 75 days, and 90% after 175 days – this was the longest blackout in U.S. history.

Following Hurricane Maria, then-President Trump issued a disaster declaration encompassing the entire territory.³ The declaration authorized federal public assistance to affected communities and certain non-profit organizations per the Federal Emergency Management Agency (“FEMA”), and in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (42 U.S.C. 5172); the Sandy Recovery Improvement Act (SRIA) of 2013; and the Bipartisan Budget Act of 2018 (Public Law 115-123). The Central Office of Recovery, Reconstruction and Resiliency (COR3) is the Applicant for FEMA grants and multiple agencies may be Sub-Applicant for specific projects, including the Puerto Rico Electric Power Authority (“PREPA”).

In September 2020, pursuant to its authority under Section 428 of the Stafford Act, FEMA approved a \$10.7 billion grant primarily for PREPA to “repair and replace thousands of miles of transmission and distribution lines, electrical substations, power generation systems, and other grid improvements.”⁴ *The aid exceeds the total public assistance funding of any single federally declared disaster other than hurricanes Katrina and Sandy.*

After the hurricanes, the Puerto Rico Energy Bureau, the archipelago’s energy regulatory body, authorized PREPA to file an updated Integrated Resource Plan (IRP) to determine the

³ Fed. Emergency Mgmt. Agency, *Puerto Rico Hurricane Maria, DR-4339-PR* (Sept. 20, 2017), <https://www.fema.gov/disaster/4339>.

⁴ P.R. Elec. Power Auth. (“PREPA”), *In re: Review of the Puerto Rico Electric Power Authority’s 10-Year Infrastructure Plan—December 2020*, Response to Resolution and Order Entered on Jan. 25, 2021, at 4 (Feb. 16, 2021), <https://energia.pr.gov/wp-content/uploads/sites/7/2021/02/Response-to-Resolutionand-Order-Entered-on-Jan-25-2021-and-Request-for-Approval-of-Revised-10-Year-Infrastructure-PlanNEPR-MI-2021-0002-1.pdf>.

impacts of the disaster on the electric system. According to the Energy Bureau, an “IRP” is a plan “that considers all reasonable resources to satisfy the demand for electric power services during a specific period of time, including those relating to the offering of electric power, whether existing, traditional, and/or new resources [. . .].”⁵⁶ As part of the IRP update, PREPA filed an appendix entitled “Renewable Project Status” which included a study that determined that up to 580 MW of utility scale projects could be safely and reliably interconnected to the grid.⁶ In August 2020, the Energy Bureau ordered PREPA to engage in an aggressive renewables’ deployment and embrace distributed solar + storage to comply with Puerto Rico’s renewable energy targets (20% by 2022; 40% by 2025; 60% by 2040, and 100% by 2050).⁷ Puerto Rico is at 2-3% renewable energy now.⁸

That same month, August 2020, FEMA issued a Notice of Availability for the programmatic environmental assessment (PEA) for “Utility Repair, Replacement, and Realignment” for Puerto Rico after Hurricane Maria, and accepted public comment for 60 days.⁹ FEMA’s stated purpose for its action is “to provide grant funding to restore damaged utilities and increase their resiliency for future weather events.”¹⁰ FEMA’s stated need is “to re-establish a safe and reliable network of utilities (through repair, replacement, or relocation) in order to reconnect the communities affected by the storm with safe and efficient delivery of energy, water, sewer service, and communications, and help reduce the potential for future damages by upgrading damaged utilities in accordance with current engineering codes and standards.”¹¹

The PEA did not consider distributed energy resources and storage as a primary use for the funds, nor did it consider climate impacts or environmental justice impacts. FEMA considered only the following four alternatives in the PEA:

⁵ P.R. Energy Bureau, *In re: Review of the Puerto Rico Electric Authority Integrated Resource Plan*, Final Resolution and Order on the Puerto Rico Electric Authority’s Integrated Resource Plan at 22 (Aug. 24,

⁶) [hereinafter “IRP Order”] (quoting Reg. 9021, § 1.08(B)(20)), <http://blogs.edf.org/energyexchange/files/2020/08/AP20180001-IRP-Final-Resolution-and-Order.pdf>

⁶ P.R. Elec. Power Auth., *In re: Review of the Puerto Rico Electric Authority Integrated Resource Plan*, Appendix 3 – Renewable Energy Project Status at 2 (2019), <https://energia.pr.gov/wpcontent/uploads/sites/7/2019/02/PREPA-Ex.-1.03-IRP-2019-Appendix-3-Renewable-Energy-ProjectStatus.pdf>.

⁷ IRP Order, *supra* note 5.

⁸ *Id.*

⁹ Public Notice for PEA, <https://www.fema.gov/disaster-federal-register-notice/dr-4339-prenvironmental-assessment-public-notice-002>.

¹⁰ U.S. Dept. of Homeland Sec., Fed. Emergency Mgmt. Agency, Region II, *Programmatic Environmental Assessment: Utility Repair, Replacement, and Realignment* at 9 (Aug. 2020) [hereinafter “FEMA PEA”], https://www.fema.gov/sites/default/files/2020-08/fema_ea_puerto-rico_utility-repairreplacement-realignment_guidedbook_august-2020.pdf; *see also* PEA Exec. Summary, https://www.fema.gov/sites/default/files/2020-08/fema_dr-4339_puerto-rico_executive-summary.pdf.

¹¹ *Id.*

- **No Action:** The “no action alternative” where FEMA would not provide grant funding and the local governments of Puerto Rico would have to fund the projects from other sources;
- **Replacement:** Applies to the repair, replacement, and upgrading of an existing utility within a maintained right of way at an existing location. Includes upgrading or rebuilding up to 20 linear miles of pipeline, transmission or distribution line, and hardening the system with flood barriers and wastewater systems;
- **Relocation:** Includes utility realignment or relocation according to the needs of subrecipients and engineering recommendations—projects are considered on a case-by-case basis. Also involves installation of on-site backup generation like combined heat and power systems, rooftop solar, fossil fuel powered standby generators, battery storage, and building energy management systems. Associated actions will involve the construction of on-site fuel storage, installation of transmission and distribution lines, and construction of substations or switch stations; and
- **Combination (FEMA’s Preferred Alternative):** Includes some combination of the No Action, Replacement, and/or Relocation alternatives to provide the post-disaster recovery effort with “flexibility in the planning and decision-making process to address such contingencies.”¹²

From August to December 2020, numerous environmental and community groups submitted public comments on the PEA. Emphasizing that “Hurricanes Irma and Maria demonstrated that the transmission and distribution system that carries power from the large, centralized power plants, especially the plants in Southern Puerto Rico to the North are a key vulnerability of the Puerto Rico electric system,” Commenters urged FEMA to consider alternatives to rebuilding the failed transmission and distribution lines that exacerbate harmful pollution by enabling dependence on fossil-fuel-fired power plants.¹³ Specifically, Commenters highlighted the alternative of installing photovoltaic systems sited on rooftops or near existing structures, coupled with battery energy storage systems (BESS) and energy conservation, education and efficiency programs.¹⁴ Unlike the alternatives in the PEA, these alternatives were informed by the recently finalized Integrated Resource Plan and its ongoing implementation processes.

In December 2020, as required by FEMA and the applicant COR3, PREPA submitted a 10-Year Plan to FEMA with a roadmap for how it would spend these funds on the “reconstruction and hardening” of the electric system infrastructure. Inexplicably, PREPA’s plan was not consistent with the approved Integrated Resource Plan, and even included several fossil fuel projects that had been explicitly rejected in the approved IRP: for example a gas-fired power plant

¹² *Id.* at 11-17.

¹³ Alianza Energía Renovable Ahora, Comments Objecting to the Approval of the Programmatic Environmental Assessment: Utility Repair, Replacement, and Realignment, Commonwealth of Puerto Rico, DR-4339-PR at 1-3 (Dec. 21, 2020), attached hereto as **Attachment 1** [hereinafter “AERA Comments”].

¹⁴ *Id.* at 3-10.

at Palo Seco, and 330 MW of gas-fired peakers around the island. In January 2021, the Energy Bureau concluded that the 10-Year Plan was inconsistent with the final IRP order from August and recognized the 10-Year Plan as a collateral attack on the final IRP order.¹⁵ PREPA agreed the plans are inconsistent,¹⁶ but subsequently submitted a “modified” plan not much different from the initial 10-Year Plan.

On January 27, 2021, President Biden issued Executive Order 14008, Tackling the Climate Crisis at Home and Abroad, which declared that this Administration’s policy is to:

organize and deploy the *full capacity of its agencies to combat the climate crisis* to implement a Government-wide approach that reduces climate pollution in every sector of the economy; *increases resilience to the impacts of climate change*; protects public health; conserves our lands, waters, and biodiversity; *delivers environmental justice*; and *spurs well-paying union jobs* and economic growth, especially through innovation, commercialization, and *deployment of clean energy technologies and infrastructure*.¹⁶

The Order further provides that “[t]he Federal Government must drive assessment, disclosure, and mitigation of climate pollution and climate-related risks in every sector of our economy, marshaling the creativity, courage, and capital necessary to make our Nation resilient in the face of this threat.”¹⁷ It establishes a National Climate Task Force, including the Secretary of Homeland Security (of which FEMA forms part) as a member, and specifies that “[t]o the extent permitted by law, Task Force members shall prioritize action on climate change in their policy-making and budget processes...and in their engagement with State, local, Tribal, and territorial governments; workers and communities...”¹⁸ In addition, the Order directs agency heads to “identify opportunities for Federal funding to spur...deployment of clean energy technologies and infrastructure...and then take steps to ensure that, to the extent consistent with applicable law, Federal funding is used to spur...deployment of clean energy technologies and infrastructure.”²⁰

In June 2021, having failed to consider climate change, environmental justice, or distributed clean energy deployment options as part of the PEA, FEMA issued the final PEA and a finding of no significant impact (FONSI)¹⁹ in open disregard of Congressional mandates, the

¹⁵ *Id.*

¹⁶ *Id.*

¹⁶ Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619, 7622 (Feb. 1, 2021) (emphasis added).

¹⁷ *Id.*

¹⁸ *Id.* at 7623.

²⁰ *Id.* at 7625.

¹⁹ U.S. Dept. of Homeland Sec., Fed. Emergency Mgmt. Agency, *Finding of No Significant Impact — Programmatic Environmental Assessment: Utility Repair, Replacement, and Realignment* (June 17, 2021)

extensive comments, Executive Order 14008, and the requirements of NEPA.

B. Two Decades Ago, Congress Instructed FEMA to Direct Funding To Resilient Infrastructure that Stands Up to Repeated Storms. FEMA Still Has Not Done So.

In October 2000, Congress passed the Disaster Mitigation Act, which “replac[ed] prior mitigation planning provisions with a new set of requirements primarily designed to authorize a program for pre-disaster mitigation... and control the Federal costs of disaster assistance.”²² In that Act, Congress directed FEMA to:

promulgate regulations to *reduce* the Federal share of assistance under [Section 406 of the Stafford Act] to not less than 25 percent in the case of repair, restoration, reconstruction, or replacement of any eligible public facility ... following an event associated with a major disaster – (A) *that has been damaged, on more than one occasion within the preceding 10-year period, by the same type of event*; and (B) the owner of which has failed to implement appropriate mitigation measures to address the hazard that caused the damage to the facility.²⁰

FEMA never completed the tasks set forth by Congress, and as a result has been operating on a 20th century reactive disaster spending mindset ever since. Then, in 2018, in the wake of the hurricanes that devastated Puerto Rico, Congress passed the Disaster Recovery Reform Act (“Reform Act”), directing FEMA to ensure funding for rebuilding infrastructure goes to those projects that are *resilient* to future disasters. The Reform Act requires FEMA to “estimate the eligible cost of repairing, restoring, reconstructing, or replacing a public facility...,” among other criteria, “in a manner that allows the facility to meet the definition of resilient developed pursuant to this subsection.”²¹ It instructs FEMA to “issue a final rulemaking that defines the terms ‘resilient’ and ‘resiliency’ for purposes of this subsection” by April 5, 2020,²⁵ as well as to issue interim guidance prior to the finalization of that rulemaking, and any “necessary guidance related to the rulemaking” after the rulemaking is complete.²² The Reform Act likewise requires that FEMA put resiliency into action by authorizing FEMA to contribute up to 75% of the cost of “hazard mitigation measures which the President has determined are cost effective and which

[hereinafter “FEMA FONSI”] (emphasis added),

https://www.fema.gov/sites/default/files/documents/fema_oehp-fonsi-utilities-repair_06-17-21.pdf.

²² Memorandum from Joseph V. Cuffari, Inspector General, to the Honorable Deanne Criswell, Administrator, FEMA, *FEMA Has Not Prioritized Compliance with the Disaster Mitigation Act of 2000, Hindering Its Ability to Reduce Repetitive Damages to Roads and Bridges* (July 6, 2021), available at <https://www.oig.dhs.gov/sites/default/files/assets/2021-07/OIG-21-43-Jul21.pdf> [hereinafter “Inspector General Report”].

²⁰ 42 U.S.C. 5172(b)(2) (Stafford Act Section 406(b)(2)).

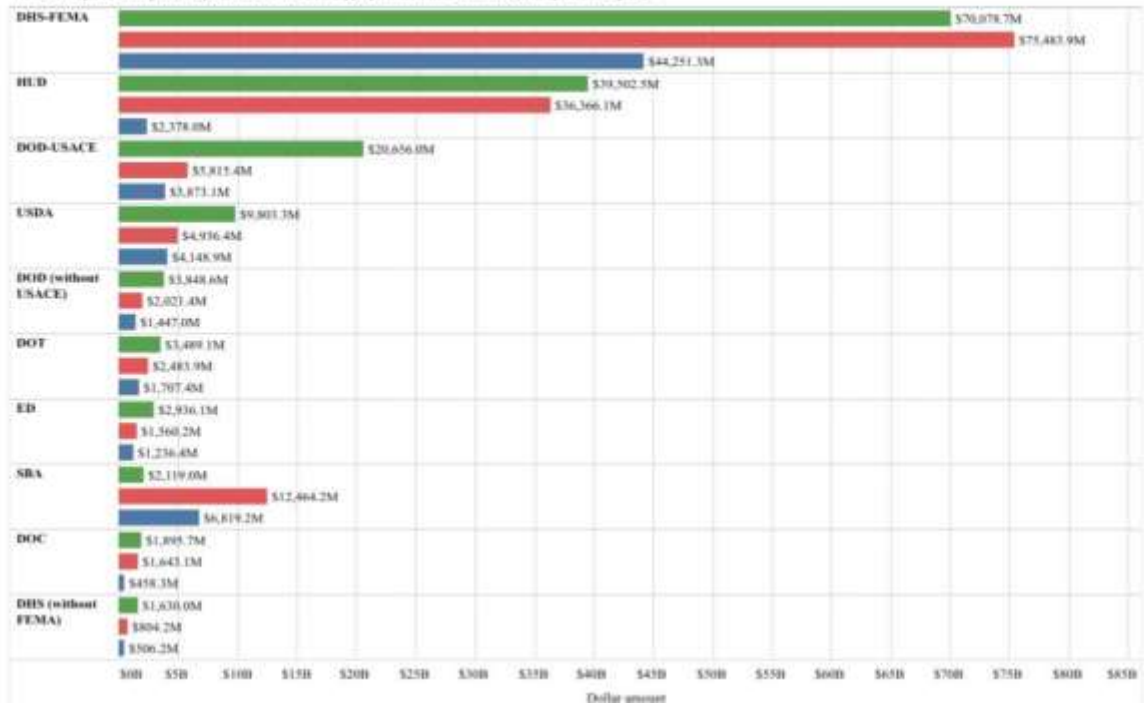
²¹ *Id.* § 5172(e)(1)(a)(iii) (added by the Disaster Recovery Reform Act, Pub. Law 115-254 (Oct. 5, 2018)).

²⁵ *Id.* § 5172(e)(5)(a).

²² *Id.*

Largest 10 Departments/Agencies by Total Appropriations since 2017

These 10 department / agencies represent 99% of the total appropriated funds across all federal departments/agencies



substantially reduce the risk of, *or increase resilience to*, future damage, hardship, loss, or suffering in any area affected by a major disaster.”²³

Twenty-one years after passage of the Disaster Mitigation Act, FEMA still has not adopted the required regulations that discourage continued injections of funding into infrastructure repeatedly destroyed by natural disasters.²⁸ And, notwithstanding Congress’ deadlines, FEMA has still not fulfilled the Reform Act’s mandate to issue regulations or guidance defining “resilient” and to ensure that no funds are provided to rebuild infrastructure that is not resilient.

FEMA’s failure to comply with Congress’ mandates has already resulted in the wasteful, improper expenditure of billions of dollars. The Inspector General concluded in July that FEMA’s failure to promulgate the required regulations has led to inappropriate federal expenditures of *nearly \$2 billion on roads and bridges alone*.²⁴ Meanwhile, FEMA has continued spending taxpayer dollars at unprecedented levels—due largely to the increasing storms and wildfires that

²³ 42 U.S.C. § 5170c (amended by the Disaster Recovery Reform Act, Pub. Law 115-254 (Oct. 5, 2018)).

²⁸ Inspector General Report, *supra* note 22.

²⁴ *Id.*

Congress foresaw in limiting FEMA funding to responsible, resilient measures.²⁵²⁶ The New York Times reported in August that, “Between 2005 and 2019 alone, the federal government spent almost half a trillion dollars on disaster assistance.²⁷ In the last four years, FEMA’s appropriations have dwarfed those of all other federal agencies, as FEMA’s own spending graph clearly shows:²⁸ With over \$10 billion allocated to the rebuilding of Puerto Rico’s grid, FEMA’s failure to comply with Congress’ directives *threatens far greater waste of taxpayers’ money*. Puerto Rico’s vulnerable long-distance transmission lines are precisely the type of infrastructure that the Disaster Mitigation Act would restrict funding for: they have been damaged repeatedly by hurricanes, which will only become more frequent and intense with the climate crisis—and that hazard has neither been addressed nor mitigated. Indeed, as far back as 2005, Congress recognized that “electric power transmission and distribution lines in insular areas [including Puerto Rico] *are inadequate to withstand damage* caused by the hurricanes and typhoons which frequently occur in [such] areas and such damage often costs millions of dollars to repair.”²⁹ Clearly, when FEMA finally gets around to promulgating its now long-overdue definition of “resilient,” that definition must be informed by the Congressional finding that Puerto Rico’s long-distance transmission lines cannot withstand the archipelago’s storms and thus are, under any definition, not resilient.

In short, Congress has been clear that repeated injections of funding into unstable, inviable infrastructure is neither a proper nor a sensible use of federal funds. FEMA has ignored Congress’ directives, resulting in the needless and wasteful expenditure of billions of dollars and portending far greater unnecessary loss of taxpayer money—as well as more destroyed infrastructure, damaged economies, and lost lives—if FEMA continues to disregard Congress’ mandates. FEMA should issue the required regulations and guidance immediately.

C. FEMA Should Have Prepared an Environmental Impact Statement.

The decision to use \$10 billion to rebuild vulnerable transmission lines that facilitate continued reliance on dirty, fossil-fuel burning centralized plants, rather than using those vast funds to build distributed renewable energy and storage, is necessarily a decision with significant

²⁵ Christopher Flavelle, *Biden Announces Record Amount of Climate Resilience Funding*, N.Y. TIMES (Aug. 5, 2021), <https://www.nytimes.com/2021/08/05/climate/FEMA-disaster-money-climate.html>. (“Starting with a string of hurricanes and wildfires in 2017, the United States has suffered devastating disasters every year since: Hurricane Michael wiping out towns in the Florida panhandle in

²⁶ , Midwest flooding in 2019, and a record 12 major storms making landfall in 2020. Last year, 22 disasters that struck the country each caused at least \$1 billion in damage — another record.”)

²⁷ *Id.*

²⁸ Fed. Emergency Mgmt. Agency, *Spending explorer*, <https://recovery.fema.gov/spending-explorer> (visited Oct. 19, 2021).

²⁹ 48 U.S.C.A. § 1492(a)(5) (emphasis added).

impacts requiring completion of a full Environmental Impact Statement (“EIS”).³⁰ Just the idea that the nature or effect of spending more than \$10 billion on Puerto Rico’s electric grid could be minimal defies common sense. Spending \$10 billion on rebuilding the electric system *should* have a positive environmental impact – if not, then that vast expenditure of money is a wasted opportunity to achieve resiliency and mitigate the harm of future disasters (precisely what Congress made clear is essential).

Moreover and critically, FEMA’s billions *will be* the primary factor determining whether and how the archipelago’s electric system is transformed to integrate the distributed renewable energy and storage called for by the Alianza Energía Renovable Ahora and authorized by the IRP.³¹ All parties agree that this transformation is necessary – but PREPA and FEMA appear to have given no thought to whether the \$10B investment will help that transformation or interfere with it. Commenters, on the other hand, noted the centrality of the funding, pointing out that this huge sum “present[s] a once-in-a-lifetime opportunity to reduce electric system vulnerability with onsite/rooftop solar plus storage....”³² Given PREPA’s bankruptcy, the idea that it could serve as a creditworthy counterparty to obtain capital to finance the costs of the electric system transformation demanded by the IRP is simply implausible.³³ In short, if the \$10 billion in FEMA funds is not invested in building a new, far more resilient electric system for Puerto Rico centered on distributed energy resources and storage, such an electric system will not be built, and FEMA will have lost an essential opportunity to fight climate change and environmental injustice.

It is no surprise, given the size of the appropriation for Puerto Rico, that the size, nature, and effects of spending FEMA’s funds as described in the PEA are the subject of major dispute between FEMA and affected residents. Commenters raised safety concerns, risks, and significant environmental impacts stemming from the planned channeling of the FEMA funds to vulnerable transmission lines, including but not limited to: (a) the reduction in water and air pollution that would result if distributed energy resources were invested in, rather than long-distance transmission lines that enable continue reliance on fossil fuel plants; (b) risks of flooding, both affecting and stemming from “undergrounding” of transmission lines and changes to topography associated with rebuilding failed transmission lines; and (c) significant impacts from the use of seawater for cooling.³⁴ Commenters’ warnings about these impacts are already proving true: the impacts from the use of seawater for cooling and other water needs at plants have become

³⁰ See 40 C.F.R. §§ 1502.1, 1508.27.

³¹ See AERA Comments at 3-4; Letter from Tom Sanzillo, Director of Financial Analysis, Institute for Energy Economic and Financial Analysis, to Deanne Criswell et al., (Oct. 13, 2021) [hereinafter “Sanzillo Letter”], attached as **Attachment 2**.

³² AERA Comments at 3-4.

³³ See Sanzillo Letter at 2 (explaining that “The federal funds available in this moment represent the best, *and only*, opportunity for Puerto Rico to realize this vision [of a transition to renewable energy]”) (emphasis added).

³⁴ See AERA Comments at 7, 15-17.

increasingly troubling in recent days, as ocean-side fossil fuel plants continue to falter in part due to high volumes of sargassum that operators have been unable to clear away.³⁵

In sum, the environmental and human impacts of spending over \$10 billion to rebuild Puerto Rico’s electric grid are (and should be) significant, and there is clearly a substantial dispute over the size, nature, and effect of the actions planned in the PEA. FEMA has not provided, nor could it provide, sufficient data to ensure that environmental consequences have been – or could be – fairly evaluated with an Environmental Assessment (“EA”) alone. Only an EIS that considers all reasonable, available alternatives – including the distributed renewable energy and storage systems called for by AERA and Rep. Raúl Grijalva, Chair of the House Committee of Natural Resources,⁴⁰ among others – could suffice.

Why, then, did FEMA fail to prepare a full EIS? Why did it refuse to consider distributed energy resources and storage – the path called for by vast numbers of Puerto Ricans – in favor of a fossil-fuel-friendly restoration of the existing transmission system that connects the fossil fueled plants with the energy demand centers, when this Administration’s policy is to address the climate crisis and halt environmental injustice? Why did it fail to evaluate the most cost-effective, resilient options for Puerto Rico’s electric system when Congress has repeatedly directed FEMA to fund resilient measures? FEMA’s actions leave us confused, frustrated, and wondering whether FEMA takes its obligations under Executive Order 14008 and to the people of Puerto Rico seriously.

D. Even assuming an EA is permissible, FEMA’s PEA does not satisfy NEPA

FEMA was required, but failed, to conduct a detailed analysis of reasonable alternatives to rebuild Puerto Rico’s electric grid. The narrow list of alternatives the FEMA included in its PEA fall far short of NEPA’s requirements. Rather than “build back better,” FEMA limited its view to rebuilding the same old infrastructure that proved unable to withstand the multiple storms that the archipelago must now come to expect. This is inconsistent with its statutory authority and the mandates of NEPA to consider all reasonable alternatives.

a. The alternatives FEMA considered in the PEA do not include all reasonable alternatives available and necessary to meet the purpose and need for the PEA.

NEPA requires federal agencies to prepare an environmental assessment to assess the

³⁵ Patricia Mazzei, *‘Why Don’t We Have Electricity?’: Outages Plague Puerto Rico*, N.Y. Times (Oct. 19, 2021), <https://www.nytimes.com/2021/10/19/us/puerto-rico-electricity-protest.html> (“The system is so frail that a power plant recently went offline because sargassum — seaweed — blocked its filters.”). ⁴⁰ See Letter from Rep. Raúl Grijalva, Chair, House Committee on Natural Resources, to FEMA Administrator Deanne Criswell (dated Oct. 25, 2021), attached hereto as Attachment 3.

impacts of its actions, and these requirements are specified by the Council on Environmental Quality (CEQ) regulations.³⁶ An environmental assessment is a document that briefly provides “evidence or analysis” on which the agency determines whether to prepare an impact statement (EIS).⁴² If the agency determines that an EIS is not required, it prepares a FONSI.⁴³

NEPA requires federal agencies to consider whether they can carry out their proposed action in a less environmentally damaging manner and whether “appropriate” and “reasonable” alternatives exist that make the action unnecessary.⁴⁴ The alternatives requirement is the heart of the NEPA process and is required for both an EA and an EIS.⁴⁵ The alternatives analysis is determined by the agency’s “purpose and need” statements: alternatives are intended to be those that advance the purpose and meet the need for the project.⁴⁶ Agencies must consider multiple available alternatives to achieve the stated purpose and need, rather than rely on only a narrow set of options to achieve that purpose. The point is to determine which options can be used to achieve a particular goal and to understand the environmental impacts of each of them, so that the public and decision-makers—in this case, FEMA—can choose the best option.

Here, FEMA’s articulated purpose is “to provide grant funding to restore damaged utilities *and increase their resiliency* for future events.”⁴⁷ That purpose demands consideration of far more alternatives than FEMA evaluated.

In the PEA, FEMA explicitly mentions its authority under Sections 404 and 406 of the Stafford Act and the Bipartisan Budget Act of 2018. Congress also granted greater authority to FEMA under the Reform Act, discussed above. As detailed below, all of those statutory provisions authorize—indeed, demand—consideration of alternatives that are more resilient than the rebuilding of vulnerable long-distance transmission lines discussed in the PEA.⁴⁸

The Stafford Act, the primary legislation governing FEMA, authorizes “hazard mitigation” funding under different provisions. Section 406 of the Act authorizes contributions “to a State or local government for the repair, restoration, reconstruction, or replacement of a public facility damaged destroyed by a major disaster and for associated expenses incurred by the government.”⁴⁹ Section 404 of the Act authorizes the funding of hazard mitigation projects, “subject to approval by the President.”⁵⁰ The funding may be used to “conduct activities to help reduce the risk of future damage, hardship, loss, or suffering in any area affected by a wildfire or a windstorm”⁵¹ or “to

concerning alternative uses of available resources.”); 40 C.F.R. § 1501.4(b); *see also* 40 C.F.R. § 1504.8 (agency may prepare environmental assessment though not required to do so).

⁴² 40 C.F.R. § 1508.9(1).

⁴³ *Id.* § 1501.4(e); *see also* 40 C.F.R. § 1508.13 (definition).

³⁶ 42 U.S.C. § 4332(E) (NEPA requires federal agencies to “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts

⁴⁴ 42 U.S.C. § 4332(E).

⁴⁵ 40 C.F.R. § 1502.14; 40 C.F.R. § 1502.2(d) (alternatives considered must achieve NEPA’s statutory requirements); 40 C.F.R. § 1505.1(e) (alternatives considered must be within range of alternatives considered in relevant environmental documents); 40 C.F.R. § 1508.25(b).

⁴⁶ 40 C.F.R. § 1502.13; 40 C.F.R. § 1501.5(c)(2); 40 C.F.R. § 1508(9)(b); *see also Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233 (9th Cir. 2005).

⁴⁷ FEMA PEA, *supra* n. 10, at 9.

⁴⁸ *Id.* at 12-13, 62.

⁴⁹ 42 U.S.C. 5172(a)(1)(A); Stafford Act Section 406(a)(1)(A).

⁵⁰ *Id.* § 5170c(a) (Stafford Act Section 404(a)).

⁵¹ *Id.* § 5170c(f) (Stafford Act Section 404(f)).

help reduce the risk of future damage, hardship, loss, or suffering in any area affected by earthquake hazards....”³⁷

The Bipartisan Budget Act of 2018, a portion of which is explicitly aimed at addressing Puerto Rico’s hurricane recovery, likewise offers additional authority for hazard mitigation funding. Section 20601 of that Act authorizes FEMA to fund, under the alternate funding procedures set out in Section 428 of the Stafford Act, projects in Puerto Rico for critical services, including power,³⁸ that “replace or restore the function of a facility or system to industry standards *without regard to the pre-disaster condition of the facility or system*” or “replace or restore components of the facility or system not damaged by the disaster where necessary to fully effectuate the replacement or restoration of disaster-damaged components to restore the function of the facility or system to industry standards.”³⁹

Finally, 2018’s Disaster Recovery Reform Act expanded FEMA’s authority to fund hazard mitigation measures. The Reform Act amended Section 404(a) of the Stafford Act to authorize FEMA to contribute up to 75% of the cost of “hazard mitigation measures which the President has determined are cost effective and which *substantially reduce the risk of, or increase resilience to, future damage, hardship, loss, or suffering in any area affected by a major disaster.*”⁴⁰

Notwithstanding Congress’ multiple directives to FEMA to direct funding to resilient, harm-limiting measures, FEMA’s PEA did not include *any* alternatives – such as using the funds for distributed energy resources and storage, as Commenters strongly recommended – that would replace and restore the function of Puerto Rico’s electric system in any sort of cost-effective, resilient manner. Instead, FEMA only proposed rebuilding Puerto Rico’s vulnerable long-distance

³⁷ *Id.* § 5170c(g) (Stafford Act Section 404(g)).

³⁸ The Bipartisan Budget Act adopts the definition of “critical services” under Section 406 of the Stafford Act, which defines them to include power, water, emergency medical care, and several other services. *See* Pub. L. 115-123. Sec. 20601; 42 USC 5172(a)(3)(B) (Stafford Act Section 406(a)(3)(B)).

³⁹ Pub. L. 115-123. Sec. 20601(1)-(2).

⁴⁰ 42 U.S.C. § 5170c (amended by the Disaster Recovery Reform Act, Pub. Law 115-254 (Oct. 5, 2018)).

⁵⁶ Sept. 2021 FEMA Letter, *supra* n. 2, at 2.

transmission lines, poles and towers, apparently failing to recognize that rebuilding those lines reduces neither the risk of future damage to the lines nor the loss of health and life that will result when those lines are again knocked down – and the centralized fossil fuel plants they connect to, damaged – by the archipelago’s powerful Hurricane winds, floods, or earthquakes.

Only now, after issuing the FONSI, is FEMA beginning to explore a broader range of available alternatives for rebuilding Puerto Rico’s electric system. In a September 2021 letter to COR3, FEMA reported that – together with the Department of Energy – it is “getting ready to launch a comprehensive study to evaluate scenarios and pathways to meet Puerto Rico’s renewable energy targets in a way that achieves both short-term recovery goals and long-term resilience.”⁵⁶

Again, the people of Puerto Rico ask: why? Why would FEMA intentionally exclude from the PEA the very options that will actually protect the archipelago’s grid, economy, and residents from future harm? Why would it only begin to evaluate additional alternatives for the resilient reconstruction of Puerto Rico’s electric system *after*, and outside of, the NEPA process, the purpose of which is to explore those alternatives *before* funds are allocated?

b. The Purpose and Need Statement of the PEA, as interpreted by FEMA, Frustrates Congressional Directives and the Objectives of Federal Statutes.

While the alternatives evaluated by FEMA were far fewer than those which FEMA could and should have evaluated to achieve the PEA’s stated purpose and need, that purpose and need statement is itself too narrow. A purpose and need statement must allow for consideration of all reasonable alternatives that fall within the statutory authority for a project – that is, it must not frustrate Congressional desires and the objectives of federal laws by evaluating only some of the ways a project could be accomplished, rather than the full scope of options available under the law.⁴¹ Similarly, and for similar reasons, a purpose and need statement may not be limited to what applicants propose.⁴²

Here, FEMA has wrongly narrowed the scope of its PEA to whatever PREPA proposes in the 10-Year Plan. As noted above, FEMA described the respective purpose and need of the PEA as:

to provide grant funding to restore damaged utilities and increase their resiliency for future events [and] to re-establish a safe and reliable network of utilities (through repair, replacement, or realignment) in order to reconnect the communities affected by the storm with safe and efficient delivery of energy. . . and help reduce the potential for future damages *by upgrading damaged utilities*

⁴¹ See *Simmons v. U.S. Army Corps of Eng’rs*, 120 F.3d 664 (7th Cir. 1997); see also *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233 (9th Cir. 2005).

⁴² *Nat’l Parks & Conservation Ass’n v. Bureau of Land Mgmt.*, 586 F.3d 735 (9th Cir. 2009).

*in accordance with current engineering codes and standards.*⁴³

As explained above, FEMA’s authority and duty go far beyond that narrow scope. The Stafford Act and the Bipartisan Budget Act of 2018 authorize FEMA to fund far more alternatives than its purpose and need statement might suggest are available. FEMA is not constrained, for example, to “upgrading damaged utilities in accordance with current engineering codes and standards.” Rather, FEMA is obligated to fund cost-effective measures that “substantially reduce the risk of, or increase resilience to, future damage, hardship, loss, or suffering” in disaster-affected areas, including by funding projects that “*replace or restore the function of a facility or system without regard to the pre-disaster condition of the system.*”⁴⁴ Here, the *only* projects that would cost-effectively restore the function of Puerto Rico’s electric system in a manner that will reduce the risk of future damage, hardship, loss, and suffering, as required by the Bipartisan Budget Act and the Reform Act, are the distributed energy and storage projects described by Commenters. Yet FEMA did not consider them at all.

Nor does FEMA have any basis to evaluate, in this PEA, only transmission and distribution projects to the exclusion of generation.⁴⁵ Again: the only cost-effective method to restore the function of Puerto Rico’s electric system in a manner that will reduce the risk of future harm and damage – as well as minimize the need for further massive taxpayer expenditures to replace infrastructure damaged yet again by storms – are distributed renewable resources and battery storage, as Commenters explained. Investing in those technologies would mean that rebuilding of the vast majority of transmission lines *would not be needed.*^{46,47} By considering in this PEA only the rebuilding of those extensively vulnerable—an action that the Council of Environmental Quality recognizes is improper⁴⁸ and to wonder *why FEMA is asking taxpayers to pour \$10*

⁴³ FEMA FONSI, *supra* n. 21, at 2 (emphasis added).

⁴⁴ Pub. L. 115-123, Sec. 20601(1)-(2).

⁴⁵ See Sept. 2021 FEMA Letter, *supra* n. 2, at 3 (declaring that “power transmission may be covered in the PEA, but power generation is not covered....”).

⁴⁶ See Cambio Puerto Rico and Inst. for Energy Econs. & Fin. Analysis, *We Want Sun and We Want More: 75% Distributed Renewable Generation in 15 Years in Puerto Rico Is Achievable and Affordable* (Mar.

⁴⁷), https://cambiopr.org/wp-content/uploads/2021/03/We-Want-Sun-and-We-Want-More-SummaryENGLISH-03_21.pdf (“Queremos Sol Report”). The Queremos Sol Report concludes that a system powered by distributed resources would dramatically reduce reliance on the vulnerable long-distance transmission lines. *Id.* at 11-12. The report’s authors demonstrate that their proposal would lower the T&D investment from the \$9B sought by PREPA, to about \$650M. *Id.* at 12-13; see also Nat’l Renewable Energy Lab., Presentation: *Puerto Rico Low-to-Moderate Income Rooftop PV and Solar Savings Potential* at slide 10 (Dec. 17, 2020) (“We Can Offset All Residential Electricity Consumption With Residential Rooftop Solar in PR”), <https://www.nrel.gov/docs/fy21osti/78756.pdf>.

⁴⁸ Council on Envntl. Quality, *National Environmental Policy Act Implementing Regulations Revisions*, 86 Fed. Reg. 55757, 55760 (Oct. 7, 2021) (“Always tailoring the purpose and need to an applicant’s goals when considering a request for an authorization could prevent an agency from considering alternatives that better meet the policies and responsibilities set forth in NEPA merely because they do not meet an applicant’s stated goals. Additionally, an applicant’s goals themselves could be potentially confusing or

billion down the drain..

c. FEMA’s failure to evaluate viable alternatives frustrates NEPA’s objectives.

FEMA’s narrow scope in the PEA also frustrates NEPA’s objectives. Section 102 of NEPA dictates a Congressional mandate that “the policies, regulations, and public laws of the United States *shall be interpreted and administered in accordance with the policies set forth in this chapter.*”⁴⁹ FEMA is thus obligated to interpret and administer the Stafford Act and other authorizing statutes in accordance with NEPA objectives—that is, it must make decisions based on environmental factors even if those are not expressly identified in those statutes. Because, as explained herein, FEMA did not do so here, it has acted contrary to the objectives of NEPA. Rather than disregard the mandate to educate the public and decision-makers about the environmental impacts of all available alternatives, FEMA should complete a PEA and EIS that considers all lawful alternatives for building a better electric grid in Puerto Rico—including the alternative of responsibly utilizing the \$10 billion to invest in distributed energy resources and storage.

E. FEMA Unlawfully Failed to Consider Climate Impacts in issuing the FONSI.

FEMA was obligated to consider climate change impacts in the EA. Climate change impacts are reasonably foreseeable impacts of FEMA’s allocation of billions of dollars in funding for Puerto Rico’s electric grid. *In fact, it is FEMA’s obligation to ensure that these taxpayer funds do have a positive impact on climate.*⁵⁰ Using those funds to maintain transmission lines that cross Puerto Rico and enable the continued operation of climate-changing, large oil-, coal- and gasburning power plants, rather than using them to acquire and install distributed energy generation has undeniable harmful climate impacts. Accordingly, FEMA was obligated to consider those impacts in the EA. Commenters raised those concerns,⁵¹ yet FEMA still failed to consider climate impacts. FEMA’s failure to do flies in the face of NEPA mandates and President Biden’s Executive Order 14008, Tackling the Climate Crisis at Home and Abroad.

unduly narrow or restrictive. ...[A]gencies should consider a range of alternatives that are technically and economically feasible and meet the purpose and need for the proposed action but that are not unreasonably constrained by an applicant’s stated goals.”).

⁴⁹ 42 U.S.C. § 4332.

⁵⁰ Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, 86 Fed. Reg. 7619, 7622 (Feb. 1, 2021).

⁵¹ In its Comment, the Rincón chapter of Surfrider Foundation addressed the gap in FEMA’s EA of any mention of climate change as a criterion for determining potential environmental impacts. ⁶⁷ U.S. Env’tl. Prot. Agency, *Environmental Justice and National Environmental Policy Act*, <https://www.epa.gov/environmentaljustice/environmental-justice-and-national-environmental-policy-act>.

⁶⁸ Executive Order 12898, *Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*, 59 Fed. Reg. 7629 (Feb. 16, 1994).

F. FEMA Did Not Comply with Executive Orders and other Duties to Assess and Account for Environmental Justice in issuing the FONSI for the PEA.

FEMA was obligated to consider environmental justice in finalizing the PEA. As EPA has explained, “Federal agencies must consider environmental justice in their activities under NEPA.”⁶⁷ President Clinton’s EJ Executive Order (EO) 12898 specifically calls for agencies to address significant adverse environmental effects on minority and low-income communities in mitigation measures outlined or analyzed in EAs and FONSI. ⁶⁸ Indeed, CEQ issued an Environmental Justice (EJ) guidance document, including 6 principles for agency EJ analyses.⁵²

There are environmental justice concerns associated with the rebuilding of Puerto Rico’s electric grid. The comments of the Alianza Energía Renovable Ahora on the PEA specifically note that FEMA’s PEA fails to document the high numbers of Afro-descent population in Guayama, Salinas, and other municipalities where the most polluting electric power plants are located,⁵³ the continued use of which would be enabled by rebuilding the archipelago’s repeatedly-damaged long-distance transmission lines. Commenters also underscored that without FEMA financing, low- and medium-income residents of Puerto Rico “would not be able to access loans, rebates or leases for solar + storage,” making FEMA financing essential to equitable and broad use of distributed energy resources.⁵⁴

FEMA failed to consider environmental justice in any meaningful way in issuing the FONSI. FEMA’s reply in the FONSI does not indicate that any of these considerations were taken into account. Although FEMA “acknowledge[s] the prevalence of afro descendant (black Hispanic) populations throughout the Commonwealth,”⁵⁵ FEMA’s response indicates that FEMA did *nothing* to examine whether its funding decisions for Puerto Rico’s electric grid would have disproportionate impacts on black Hispanic Puerto Ricans.

FEMA’s actions are inconsistent with Executive Order 12898 and President Biden’s Executive Order 14008. As federal courts have noted, “environmental Justice is not merely a box to be checked:”⁵⁶ rather, it is an obligation that—as President Biden has made clear—must be taken very seriously. FEMA’s failure to meaningfully evaluate the environmental justice implications of the PEA in issuing the FONSI begs the questions: what is FEMA’s commitment to environmental justice, and how exactly does it intend to act on that commitment when it is ignoring the demands of thousands of Puerto Ricans to build a cleaner, more resilient, more reliable electric system?

⁵² See n. 67, *supra*.

⁵³ FEMA FONSI, *supra* n. 21 at 21 (disregarding or failing to answer with any specificity in its responses to comments on this issue).

⁵⁴ AERA Comments at 9.

⁵⁵ *Id.*

⁵⁶ *Friends of Buckingham v. State Air Pollution Control Board*, 947 F.3d 68, 92 (2020).

G. Where does FEMA go from here?

FEMA stands at a crossroads. It can comply with Congress' and President Biden's mandates to direct funding to resilient, cost-effective measures that counter climate change and ensure environmental justice. Or, it can continue the status quo of pouring billions of dollars into old, polluting, climate-changing infrastructure that harms communities and will require repeated injections of taxpayer dollars in the coming years.

We believe that FEMA can rise to the occasion of climate- and environmental justice, but it must start now. FEMA must withdraw the FONSI; prepare an EIS; evaluate climate change impacts and all viable, cost-effective, resilient alternatives for the use of the more than \$10 billion dedicated to rebuilding Puerto Rico's electric grid; and begin the process of distributing that funding so that all Puerto Ricans have access to reliable, affordable clean power.

Sincerely,

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Comité Yabucoño Pro-Calidad de Vida, Inc.
Alianza Comunitaria Ambientalista del Sureste, Inc.
Sierra Club Puerto Rico, Inc.
Mayagüezanos por la Salud y el Ambiente, Inc.
Coalición de Organizaciones Anti Incineración, Inc.
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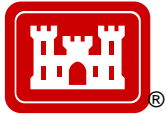
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Bluestone Dam Safety Assurance Mega-Project

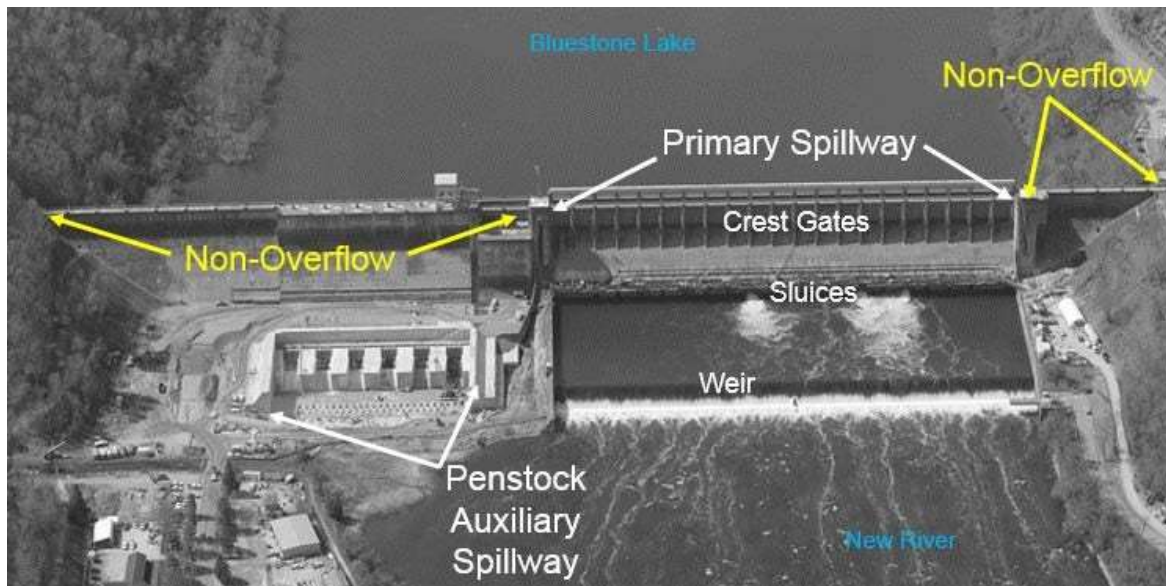
Fact Sheet As of 29 January 2019

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

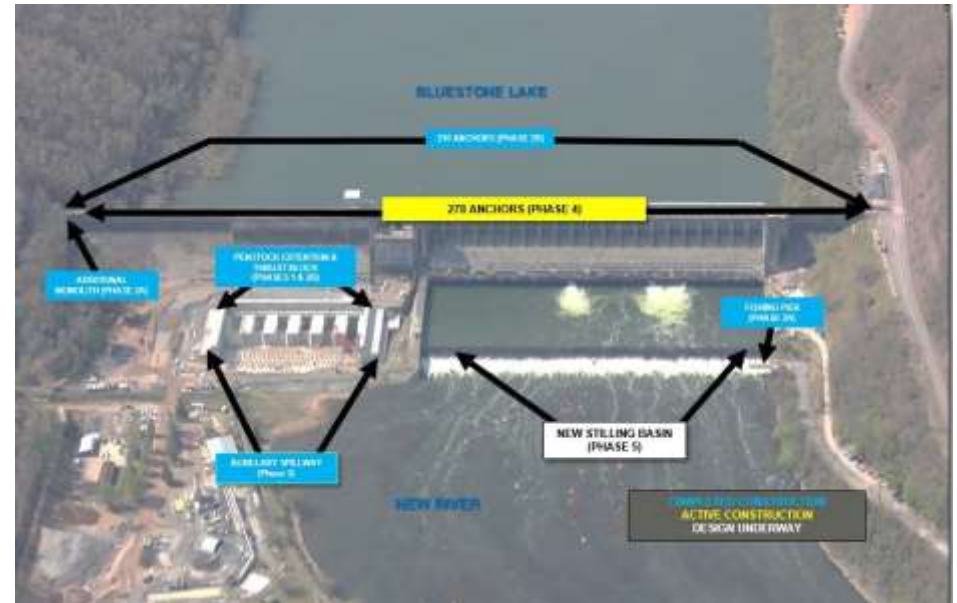
Location: Bluestone Dam is located in West Virginia in Summers County within the New River Basin, which is a sub-basin of the Kanawha River Basin. Bluestone Dam is located approximately one and a half miles upstream of the City of Hinton and a half mile upstream of the confluence of the New and Greenbrier Rivers. The project began operations in 1949 and controls a drainage basin approximately 4,600 square miles in size. The dam is a conventional concrete gravity dam measuring nearly a 0.5 mile long and 165 feet tall.

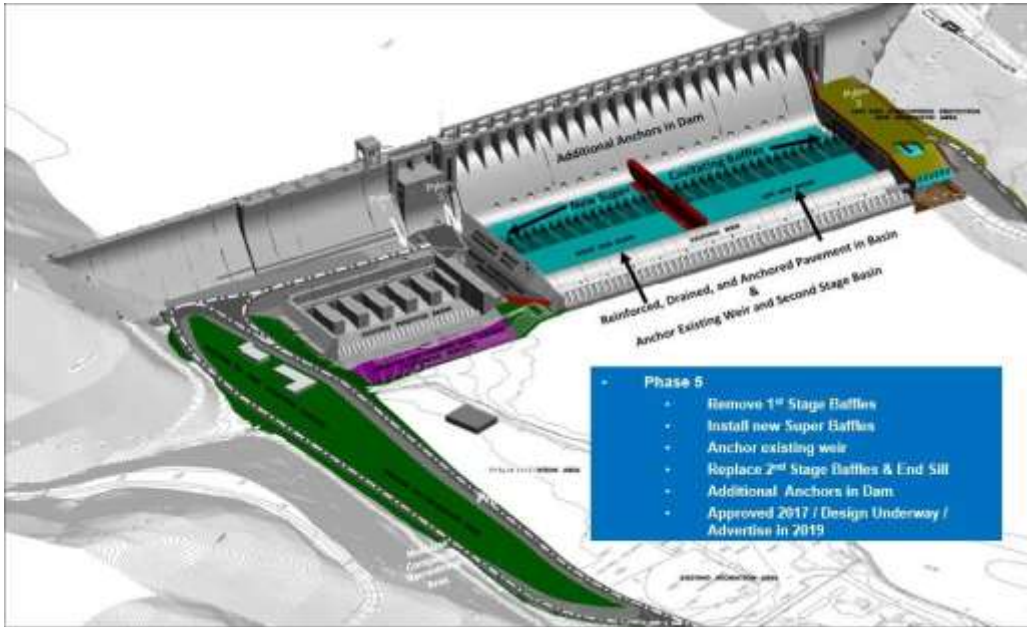
Purpose: A Dam Safety Assurance (DSA) report was approved in 1998 to address a hydrologic deficiency. Investments approved by a 1998 Dam Safety Assurance (DSA) (Phases 1-4) study increase confidence in the dam's ability to store water to its original design elevation (EI 1520). However, without further investment, the primary spillway cannot pass significant flow without substantially increasing the potential for a breach of the dam. A breach would cause catastrophic flooding along the largest river valleys in West Virginia that include the capital city of Charleston and major manufacturing and chemical industries. Dam failure could put 165,000 lives at risk and result in property damages in excess of \$20B



Completion of the existing DSA work underway, primarily consisting of raising the dam to prevent overtopping, increasing outflow capacity with an auxiliary spillway and stabilizing the dam with rock anchors and thrust blocks, is anticipated to be complete in 2019.

Project Description and Background: is designated a DSAC 2 project. Phase 1 of the phased modification project was awarded in 2000 and completed in 2004. Phase 1 included an access bridge over the stilling basin, a mass concrete thrust block, extension of six penstocks and installation of three penstock bulkheads. Phase 2A was awarded in 2004 and completed in 2007. Phase 2A consisted of a highway swing gate closure, an upgraded access road, a fisherman pier for mitigation, a right abutment gravity wall and utility line relocation. Phase 2B was awarded in 2005 and completed in 2011. Phase 2B installed 150 anchors and 3 remaining penstock bulkheads. American Recovery & Reinvestment Act (ARRA) funding helped to install gallery drains and 66 additional anchors. Phase 3 was awarded in 2010 and was completed in 2016. Phase 3 completes an auxiliary stilling basin for the penstocks. Phase 4 was awarded in 2012. Phase 4 work included installation of 278 high strength steel strand anchors in the spillway and non-overflow monoliths. Phase 4 is expected to be complete in 2019.





Additional Concern & Supplementary Study: In 2008, an Issue Evaluation Study concluded that risks to the public will continue to be unacceptably high and further study was warranted. In 2013, a Baseline Condition Risk Assessment confirmed an additional failure mode not addressed by the 1998 study which required attention. A Dam Safety Modification Report Supplement (DSMRS) examining alternatives for reducing risk associated with the failure modes not covered by the 1998 DSA report was approved in 2017. The Selected Plan (Phase 5) has been identified which includes changing the primary stilling basin to handle extreme outflows without concern of scour leading to dam failure. The DSMRS was approved in 2017. **Phase 5 is anticipated to be advertised in 2019**

Email Questions to: BluestoneDamDSA@usace.army.mil

Industrial Hog and Poultry Operations Pollute the Environment and Harm Communities

- North Carolina is the second largest hog producer in the country. There are more than 2,000 industrial hog operations raising 9 million hogs each year. These hogs produce billions of gallons of hog waste each year.
- The hog industry uses a primitive waste management system that involves storing untreated hog manure and urine in uncovered, often unlined pits and spraying the liquid waste onto fields. This waste management system is called the lagoon and sprayfield system. The North Carolina legislature outlawed this practice for new and expanding hog operations in 2007, but it allowed existing operations to continue using this outdated system.
- The lagoon and sprayfield system pollutes waterways and contaminates drinking water. Untreated hog waste runs off into rivers and streams from sprayfields, leading to algal blooms and fish kills. Pollution also leaches into groundwater, where it can pollute drinking water for neighbors with harmful contaminants, including nitrate.
- Lagoons and sprayfields also release harmful air pollutants such as ammonia, hydrogen sulfide, and methane, a potent greenhouse gas, into the air. This pollution leads to higher rates of respiratory diseases and creates noxious odors, decreasing the quality of life and harming the health of people living nearby.
- Industrial hog operations using the lagoon and sprayfield system disproportionately harm communities of color who bear the burden of air and water pollution and adverse health impacts that are caused by this primitive waste management system. Native Americans, African Americans, and Latinx Americans are 2.18, 1.54, and 1.39 times more likely than whites to live within three miles of industrial hog operations, respectively.
- People living near industrial hog operations have higher death rates from causes such as anemia, kidney disease, and tuberculosis. A recent study published by the Proceedings of the National Academy of Sciences attributes an astounding 95 premature deaths in Sampson County and 83 premature deaths in Duplin County, the top two hog producing counties in the country, to the emissions from animal operations every year.
- Twenty years ago, Smithfield invested significant resources in developing cleaner technology to deal with hog waste and promised to implement these technologies at its operations in the state. But the corporation has refused to implement any technology to clean up water, air, or foul odors because it claimed doing so was too expensive.

- Industrial poultry operations, which raise tens of thousands of animals at a time, also use a primitive system for managing waste – producers store dry poultry waste in large uncovered piles, where it can spill into nearby waterways and travel through the air. This waste is periodically applied to fields. These operations are located throughout the state, and are concentrated in the southeastern region of the state where the vast majority of hog operations are also located.

Making Biogas from Lagoons & Sprayfields Makes Pollution and Health Problems Even Worse

- Smithfield Foods, the nation’s largest hog producer, and Dominion Energy are planning their first largescale swine waste to energy (“biogas”) project in Duplin and Sampson counties. The project involves capping hog waste pits at 19 industrial hog operations to capture methane and other gases from the pits, constructing a processing plant to process the gases, and constructing 30+ miles of pipeline to connect the hog operations and the processing plant.
- As proposed by Smithfield and Dominion, producing biogas entrenches the harmful lagoon and sprayfield system. At each hog operation, biogas is produced by covering hog waste pits and siphoning off the methane and other gases that would otherwise be released into the air. The remaining hog waste from digesters is transferred to open-air “secondary” lagoons and sprayed onto fields.
- Producing biogas in this way does *not* address many of the significant pollution problems of using open lagoons and sprayfields to store and dispose of hog waste. In fact, the use of digesters is likely to *increase* ammonia emissions when the digester waste is stored in open-air lagoons and sprayed on fields.
- The increase in ammonia emissions will lead to even more pollution of rivers, streams, and groundwater, and will make even worse an already dire health problem among people living nearby these operations.
- Hog operations producing biogas are disproportionately located in communities of color, and these communities will bear the burden of the pollution and health impacts from these operations.
- Biogas is *not* a clean energy resource like solar and wind energy because the emissions that biogas depends on are not naturally occurring. The methane emissions from hog waste lagoons are, in fact, avoidable.
- Cleaner technologies and practices that are compatible with biogas production *and* reduce water and air pollution and risks to neighbors’ health available and viable. In fact, Smithfield is using some of these technologies and practices in other states.
- These cleaner technologies and practices include, but are not limited to, separating solid waste from liquid waste, nitrification-denitrification, and phosphorus treatment of the hog waste and injection or drag hose for disposing of the waste.

coming clean

December 1, 2021

White House Environmental Justice Advisory Council (WHEJAC)
% Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Submitted electronically to whejac@epa.gov

Attention Docket ID No. EPA-HQ-AO-2021-0683

Dear Members of the WHEJAC,

I am writing to you as the Federal Policy Director of Coming Clean, a network of over 150 organizations working to reform the chemical and fossil fuel industries so they are no longer a source of harm. We are a strategic partner of the Environmental Justice Health Alliance for Chemical Policy Reform (EJHA), whose affiliates live on the fenceline of highly hazardous chemical facilities regulated under EPA's Risk Management Program (or "RMP"). These facilities are disproportionately located in Communities of Color and low-income communities.⁵⁷

We request that the WHEJAC **include proximity to these high-risk RMP facilities as an indicator in the Climate and Economic Justice Screening Tool**. EPA is currently considering restoring and strengthening RMP amendments that were put in place under the Obama/Biden administration. As such, we are also asking that the White House **prioritize tracking EPA's RMP rulemaking process, to ensure that it is the strongest rule possible**. The protections are ones that fenceline communities, like my home community, have been seeking for decades.

I am also writing as a former fenceline resident who grew up in the white working class fenceline community, across the river from Institute, WV which is a Black fenceline community with a historically Black land-grant university where a high risk chemical

⁵⁷ Environmental Justice Health Alliance for Chemical Policy Reform, Coming Clean, Campaign for Healthier Solutions. 2018. Life at the Fenceline: Understanding Cumulative Health Hazards in Environmental Justice Communities. <https://ej4all.org/life-at-the-fenceline>

facility complex was built by the U.S. government in the 1940s to support the war effort. Since then, we experienced a myriad of explosions and releases of highly hazardous chemicals used in plastics, pesticides and other agricultural and commercial products.⁵⁸ The effects from these disasters are cumulative and they are further compounded for those experiencing systematic racism. Today, this facility is still one of the top 25 producers of cancer risk from air toxics in the country as a result of ethylene oxide emissions alone,⁵⁹ and it is one of the highest emitters of greenhouse gases in Kanawha County. In fact, the chemical sector was the greatest emitter of greenhouse gases in the county in 2020.⁴

Not only do these facilities contribute to climate change, they are vulnerable as a result of it.⁶⁰ All RMP facilities in our area are located downstream of a dam, which is currently inadequate to protect against extreme storms. According to the Army Corps of Engineers, the dam is at risk of breach and if that happened, it would “cause catastrophic flooding” to these chemical facilities, put over 100,000 lives at risk and result in property damages in excess of \$20B.⁷

To reiterate, we ask that WHEJAC **include proximity to high-risk RMP facilities as an indicator in the Climate and Economic Justice Screening Tool**, and to ensure that the White House **prioritizes tracking EPA’s RMP rulemaking process to ensure that it is the strongest rule possible.**

We thank this Administration for its commitment to environmental justice issues and thank the members of this Council for all of your hard work under unprecedented pressure to help them get it right.

⁵⁸ U.S. Chemical Safety and Hazard Investigation Board. 2011. Bayer CropScience Pesticide Chemical Runaway Reaction Pressure Vessel Explosion. <https://www.csb.gov/bayer-cropscience-pesticide-waste-tank-explosion/>

⁵⁹ U.S. EPA Office of Inspector General. 2020. Management Alert: Prompt Action Needed to Inform Residents Living Near Ethylene Oxide Emitting Facilities About Health Concerns and Actions to Address Those Concerns. https://www.epa.gov/sites/default/files/2020-03/documents/epa_oig_20200331-20-n-0128_0.pdf ⁴ U.S. EPA FLIGHT Data. 2020 Greenhouse Gas Emissions from Large Facilities, Kanawha County, WV. https://ghgdata.epa.gov/ghgp/main.do?site_preference=normal. Accessed Nov 16, 2021.

⁶⁰ Center for Progressive Reform. July 2021. Preventing “Double Disasters.” <https://progressivereform.org/our-work/energy-environment/preventing-double-disasters/>

⁶¹ Coming Clean. September 2021. Unprepared for Disaster: Chemical Hazards in the Wake of Hurricane Ida. <https://comingcleaninc.org/latest-news/in-the-news/chemical-hazards-in-the-wake-of-hurricane-ida> ⁷ U.S. Army Corps of Engineers. Bluestone Dam Safety Assurance Mega-Project. Fact Sheet As of 29 January 2019. <https://www.lrh.usace.army.mil/Portals/38/docs/bluestone/Bluestone%20Dam%20DSA%20Fact%20Sheet%20Updated%2029%20Jan%202019.pdf> Accessed Sept 2, 2021.

Sincerely,

Maya Nye
Federal Policy Director
Coming Clean
28 Vernon Street, Suite 434
Brattleboro, VT 05301
(802) 251-0203 ext. 712
mnye@comingcleaninc.org



Comments to: White House Environmental Justice Advisory Council

Submitted by Leigh Ford, Snake River Alliance

Docket ID No. EPA-HQ-AO-2021-0683

Submitted via email to: whejac@epa.gov

December 2, 2021

Thank you so much for the opportunity to comment and for listening to so many voices over two long days of public meetings last month. Although I couldn't attend the entire time, it was truly powerful. It felt as if people from communities so often ignored were finally being heard. I really appreciate your time and willingness to listen. Thank you.

Both my grandfathers worked at Idaho National Laboratory (INL) in southeast Idaho and died of radiation related cancer. Although I was never "pro-nuke", I began my career at Snake River Alliance in Boise because I was interested in the clean energy program. In the last two years, I have been more involved with the nuclear program in my new role at Snake River Alliance and it has become fairly clear to me that the Nuclear Regulatory Commission (NRC) and Department of Energy (DOE) really don't care about our water, our air, or our health.

Idaho National Laboratory (INL) sits above the Snake River aquifer, a sole source aquifer identified by EPA that provides freshwater for over 300,000 people, as well as the fish, wildlife, and our farms. This starkly beautiful landscape is the traditional land of the Shoshone Bannock people and is culturally and historically significant. INL

is now a superfund site due to dangerous nuclear activities and the people here have gone far in cleaning it up at huge taxpayer expense.

None of that seems to matter to DOE or NRC. Now the nuclear industry would create more waste here, tinkering around with their “advanced” reactors, producing plutonium pits, shipping waste to communities that don’t want it, and NRC and DOE are there to facilitate. It’s important to keep in mind that there is no permanent place to store this deadliest of man-made waste and it remains dangerous for hundreds of thousands of years. This is akin to colonizing our children’s futures just as Europeans colonized this continent.

NRC and DOE continually attempt to dump radioactive waste in regular landfills and other wholly inappropriate places and they refuse to listen to citizen concerns. Recently I learned that the Australian government is going to ship radioactive waste from Hunters Hill to [US Ecology Idaho](#), a privately owned, low-level hazardous waste facility on the Snake River. Hunters Hill is located on the Sydney Harbor in New South Wales and where radium was milled from ore for watch dials, as in [Radium Girls](#). Now Hunters Hill is some of the most expensive real estate in Australia. The residents want the radioactive waste out and the Australian government was not successful at dumping it on the aboriginal people and others.

Thanks to an Australian whistleblower, I learned of the plan. This “industry insider” indicated that there was some questionable manipulation of the data such that the waste could “legally” come to the US. I’ve tried to find who at NRC can answer questions to no avail. Finally I emailed the general allegations email. It’s been weeks and I have received no response. Finally I contacted the Environmental Manager of the Shoshone Paiute tribe. I assumed that they at the very least would have been informed, as their reservation is a stone's throw away from the US Ecology dump; they had not. We are assuming the waste would go through their reservation, Duck Valley but we don’t know how to find out. I am beyond frustrated.

Not only is NRC unresponsive and unreachable, it’s difficult to find information in ADAMS to attend the meetings that are supposedly public. Those I have attended have been plagued with technical difficulties. The information provided during these meetings is often not helpful, specifically on safety and risks. It sounds more like industry PR.



It has become apparent to me that these government agencies meant to regulate and protect our interests are certainly not. At one of the earliest NRC public meetings I attended, the cozy relationship between NRC and industry staff was blatant. As a relative newcomer to these meetings, it was baffling. It was my understanding that the NRC was there to protect us, not the nuclear industry. NRC plays more of a facilitatory role, streamlining processes and offering industry staff support and assistance. At the same time, our comments are ignored. “Beyond the Scope” is a common response to public comments.

Myself and others have made several suggestions to NRC to help them remedy serious faults. For example, there ought to be an independent division of NRC, free from NRC influence or reprisal, to assist intervenors and the public, similar to how NRC assists and supports nuclear industry applicants. For too long, our communities, particularly Environmental Justice (EJ) communities have been targets for nuclear activities throughout the nuclear fuel chain. EJ communities should be encouraged to participate, presume intervenor status, and for their contentions to be accepted.

Some of the other considerations we included are listed below:

- Improve EJ policy by going beyond the National Environmental Policy Act requirements. Under NEPA, EJ should be automatically considered in Generic EISs and Environmental Assessments.
- Include the cumulative impacts from multiple sources of pollution and health stressors when “considering” EJ
- Make all information available in the primary languages of the communities and provide longer public comment periods to enable more meaningful participation.
- Provide extra measures to enable EJ communities already disproportionately impacted by COVID and the variants to engage.

- Provide mandatory, ongoing training for NRC staff on environmental justice and related topics such as diversity, equity, and inclusion.

Thank you so much for your time and consideration. I deeply appreciate your involvement, willingness to listen, and the hope you instill in so many of us. You have the support of so many. I wish you every success and look forward to following your work.

Sincerely,

A handwritten signature in green ink that reads "Leigh Ford". The signature is written in a cursive, flowing style.

Leigh Ford, Executive Director
Snake River Alliance

November 10, 2021

The Honorable Brenda Mallory, Chair
Council on Environmental Quality
Executive Office of the President
Washington, DC 20500

Re: Docket ID No. EPA-HQ-OA-2021-0683

Dear Chair Mallory:

Recently Richard Moore, Co-chair of the White House Environmental Justice Advisory Council (WHEJAC), traveled to North Carolina to commemorate the 30th Anniversary of the First National People of Color Environmental Leadership Summit. As a part of that visit, Mr. Moore toured several counties in the southeastern part of North Carolina, including Robeson, Duplin and Sampson counties. He also had the opportunity to fly over the area to see from an aerial view what many communities here, primarily communities of color and low-income communities, experience on a daily basis.

Mr. Moore requested that we share, for the benefit of other WHEJAC members, fact sheets and pictures prepared by community partners as part of his tour of impacted communities. We are enclosing with this correspondence photos of the area covered – some taken on the day of his flight and others taken of the local area by Cape Fear River Watch. We hope these images will provide valuable perspective as you consider issues related to CAFOs, landfills, coal ash, biomass, biogas, and the cumulative and disparate impacts thereof on vulnerable North Carolinians.

We ask that you share this information with the members of the WHEJAC as well as with the Interagency Council. We also invite representatives from the White House and relevant federal agencies to visit our communities to learn more about the challenges that we face in rural North Carolina and to help find solutions for these problems.

Respectfully,

A handwritten signature in cursive script that reads "Sherri White-Williamson".

Sherri White-Williamson
Environmental Justice Community Action Network

cc: Cecelia Martinez

Dental Fluorosis - a dental disaster

When fluoridation first began, the proponents promised the American public that the only and worst risk from the program was that something less than 10% of children might have a few faint white spots on their 'cavity resistant' teeth which many would find adds an attractive sparkle.

Also of note, the researchers in the early fluoridation trials treated African American children differently from the outset, writing that it was common knowledge that "Negros" have stronger teeth more resistant to decay.

It didn't take long for those involved to realize that something was very wrong, but their reaction per 1962 memo that noted high rates of fluorosis that was doubled in the African American children emphasized protecting the fluoridation program.

As both the numbers of Americans and percentage of the population drinking fluoridated water swelled, dental fluorosis also grew, disproportionately and with worse severity in Black and Latino populations.

Dental fluorosis is a defect in the tooth due to cell death during the formative stages. Those with dental fluorosis have higher bone fractures as well as higher rates of learning disabilities. Dental fluorosis is the visible evidence of similar defects due to cytotoxic effects that occur in bones and brains during critical periods of development, i.e. prenatal, infancy and early childhood.

Dental fluorosis is also a leading indicator of **higher dental costs** as these unattractive and brittle teeth will likely result in costly veneers and crowns in young adulthood. Per 2011-2012 NHANES figures released in 2017, one in five (23%) American teens have extensive mottling and perhaps pitting on at least two fluorosed teeth due to childhood exposure.

RESOURCES

- 1962 Memo: http://fluoridealert.org/wp-content/uploads/1962_01_10_Blacks_Fluorosis.pdf
- "Negros in Grand Rapids had twice as much fluorosis - indices 0.15 v. 0.35" [1] [SEP]
- 2005 CDC MMWR: <https://www.cdc.gov/mmwr/preview/mmwrhtml/ss5403a1.htm>
- "Prevalence of enamel fluorosis has increased in cohorts born since 1980." [1] [SEP]
- 2010 CDC Report: <https://www.cdc.gov/nchs/data/databriefs/db53.pdf>
- "(All levels of) dental fluorosis were higher among adolescents aged 12–15 in 1999–2004 than in 1986–1987." [1] [SEP]
- 2015 "Agua Potable o Veneno" (part 2 of 3): <https://www.youtube.com/watch?v=RGswvGZPL-M>
- Ethnic Breakdown: <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5403a1.htm#tab23> [1] [SEP]
- 2017 Dental fluorosis is result of apoptosis: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5770627/>
- 2018 Increase: <http://jd.h.adha.org/content/92/1/23>



- **Conclusion:** “There was a difference of 31.6% in dental fluorosis prevalence between 2012-2011 when compared to data from 2002-2001 in adolescents aged 16 and 17 years. The continued increase in fluorosis rates in the U.S. indicates that additional measures need to be implemented to reduce its prevalence.”

Fact Sheet

Drinking Water in NC and Environmental Justice

By Ryke Longest, Clinical Professor of Law

Regulation of Drinking Water Background:

North Carolina has long been delegated by USEPA to administer the Safe Drinking Water Act. But the state has more residents on private water supply wells not governed by the SDWA than nearly any other state. NC also has state level regulatory schemes for protection of groundwater with groundwater standards that are more stringent than federal minimums for some compounds. NC also has specific statutes and related rules for construction of wells for use as private water supplies. These private water supply well construction standards were primarily set for a consumer information basis with some basic health rules added recently requiring an initial well test for new wells. Local Health Departments in all 100 counties monitor the initial water supply well tests and maintain information about them. But persons relying on older water supply wells may have no information about the current safety of their drinking water at all. Contamination from manmade pollution events may enable residents to seek help from the Bernard Allen Fund, but NCDEQ interprets their authority to deny help to persons whose well contamination is naturally occurring.

Drinking Water and Environmental Justice in NC: Examples

A) WERA:

The West End Revitalization Association [was catalyzed](#) by the proposal to route a bypass through their historic community, which would have bulldozed down churches and removed connections between community members. Since founding, WERA has organized and engaged the City of Mebane over lack of access to water, sewer, trash collection and other basic amenities. Due to organization, they have been able to get more than 100 homes hooked up to water and sewer and off of unsafe well and septic tank systems. The city's past redlining of black neighborhoods and systemic racism had deprived the residents of clean drinking water. But with advocacy and a [civil rights](#) complaint, they were able to begin to get the clean water improvements they needed.

B) Lead in Drinking Water:

NC public water supplies are required to comply with the minimum SDWA for lead in drinking water. But many vulnerable populations were not getting lead tested for certain user groups. An example of the problem were child day care centers in NC. Our Clinic worked with local nonprofit, NC Child to get rules requiring child care centers to test for lead in their drinking water as an additional requirement beyond the minimum required by the SDWA for regulated systems. As a result NC Child found that [one in ten](#) licensed centers have unsafe levels of lead in the drinking water they are providing the children they serve. In turn, the Research Triangle International is publishing

information about their findings online. While this is great progress, the information may not be reaching EJ communities. And testing is only required at licensed day care facilities, not informal and unlicensed day care run from people's residences. The findings from the licensed facilities also call into question the safety of these unlicensed facilities. And the EJ impacts of lead in both unlicensed and licensed facilities falls on working families, single parent households, and those with

C) PFAS in Drinking Water:

The discovery of massive emissions and discharges of PFAS from the Chemours facility on the Cape Fear River [sparked state](#) and federal litigation and a spate of private litigation against the firm. But subsequent investigations found that residents far upstream of Chemours in Pittsboro had high [PFAS levels in their bodies](#). The UNC Policy Collaboratory has studied water supply intakes in North Carolina to study as a background for PFAS, finding a large number already heavily impacted. Existing water treatment used in NC does not remove PFAS and so the impacts from the water supply watersheds are reflected in PFAS in our tap water.

D) Coal Ash Contamination:

SELC has been at forefront in forcing NCDEQ to respond to documented, ongoing seepage of groundwater contamination from coal ash impoundments through extensive litigation. In 2013, NCDEQ actually began enforcing groundwater and surface water protections against owners of coal ash impoundments across the State. The NC General Assembly enacted legislation to set specific standards for coal ash disposal sites and NCDEQ began reviewing permits for these proposed disposal locations. But there was a long period where coal ash was allowed to be used as beneficial fill dirt for construction projects. Everything from swine farm buildings to a police station have used coal ash beneath their foundations. In 2006, NCDEQ cited a company who provided these beneficial fill services for excavating sites prior to addition of beneficial fill, creating a de facto coal ash landfill. No GW or surface monitoring is currently required for these older beneficial fill projects, though NC DEQ is cataloging their locations. No water supply testing is being required for nearby water supply wells.



December 2, 2021

White House Environmental Justice Advisory Council
Environmental Protection Agency
[Mail Code 2201A]
1200 Pennsylvania Avenue, NW
Washington, DC 20460
By email: whejac@epa.gov

**Environmental Racism and Justice issues in Claiborne County, MS
and the Blind Eye of NRC Oversight on Nuclear Power
Attention: Docket ID No. EPA-HQ-AO-2021-0683**

To whom it may concern,

On behalf of Beyond Nuclear, a nongovernmental organization and non-profit corporation in the public interest based in Takoma Park, MD, I thank you for this opportunity to comment on issues relating to Docket ID No. EPA-HQ-AO-2021-0683 and persistent racial and environmental justice issues (EJ) involving the United States Nuclear Regulatory Commission (NRC) and the commercial nuclear power industry.

Beyond Nuclear is providing comments to bring to light the example of the Grand Gulf nuclear power station sited in Port Gibson, Claiborne County, Mississippi that continues to impose environmental justice issues affecting the vast majority of a minority lowincome population that resides within the current electric power facility's radiological emergency planning zone.

Beyond Nuclear respectfully requests that the White House Environmental Justice Advisory Council (WHEJAC) look into the long-aggravated existence of environmental justice and environmental racism issues arising from the NRC blind eye on public health and safety arising out of the operating license of the Grand Gulf nuclear power station and the Mississippi Tax Code as amended in 1986. The legislated law stripped Claiborne County, MS from collecting property taxes to benefit taxpaying residents owed by the owner and operator of the Grand Gulf nuclear power station in Port Gibson, MS. Presently, Entergy pays its property taxes to the State of Mississippi rather than the

County for the purpose of subsidizing an exorbitant cost of the nuclear power station's

electricity rate for communities in western Mississippi. As such, Grand Gulf nuclear power station in Claiborne County, MS is the only nuclear power station in the country that pays its property tax to the state rather than the county in which it operates. The county's lost revenue disproportionately and adversely affects the lives and livelihood of its 87% majority of African American residents where 47% of the population is living below the poverty line according to census figures.

The disproportionately high and adverse consequences to this community were initially illuminated by a proposed Early Site Permit (ESP) application filed on October 16, 2003, by System Energy Resources, Inc. (SERI), a limited liability corporation of Entergy Corporation, to the NRC. The application was filed to environmentally qualify the existing site for the additional nuclear power plant(s) to be constructed adjacent to the existing operational power reactor, Grand Gulf Unit 1 in Port Gibson, MS. The siting application was approved by an NRC licensing board on January 26, 2007 and an adjudicatory appeal was subsequently denied by the Commissioners. However, the proposed construction project was subsequently suspended. Nevertheless, the licensing process revealed the gross and the disproportional socio-economic impact of racial discrimination subjected on this minority, low-income African-American community arising from the current and continued operation of the original power reactor.

“Environmental justice refers to a Federal policy under which each executive agency identifies and addresses, as appropriate, disproportionately high and adverse impacts on human health or environmental effects of its programs, policies, and activities on minority(a) or low-income populations. Executive Order 12898 (59 FR 7629) directs Federal executive agencies to consider environmental justice under NEPA. The Council on Environmental Quality (CEQ) has provided guidance for addressing environmental justice (CEQ 1997). Although it is not subject to the Executive Order, the Commission has voluntarily committed to undertake environmental justice reviews.”⁶²

In this case, the initial environmental justice issues for Claiborne County stem from the original licensing and construction of Grand Gulf Unit 1 which commenced operations on July 1, 1985. At the time of the issuance of Grand Gulf's construction permit on September 9, 1974, Claiborne County's largely African-American and disproportionately poor population had been promised that the nuclear power project would bring an economic boom to the impoverished rural community with property tax revenues for infrastructure improvements including better services (i.e., schools, police and fire stations, first responders, hospital upgrades) and the expansion and improvements to

⁶² Environmental Impact Statement for an Early Site Permit (ESP) at the Grand Gulf ESP Site (Final Report), NUREG-1817, p. 5-43 (p.283 of 876)

roads and bridges.

However, as the power project's construction proceeded over the decade on borrowed money, cost overruns eventually ballooned to 900% from the original estimated sticker

price to more than \$4 billion dollars by the time of the project's completion and federal issuance of an operating license on November 1, 1984. Shortly before the operation commenced, then Arkansas Governor Bill Clinton testified before the United States Senate Committee on Small Business and Farmers, warning that the operation and inclusion of the Grand Gulf nuclear power station into the rate base with its catastrophic cost overrun represented "the greatest single threat ever to the economic future" of the State of Arkansas by raising electricity costs as much as 50% across the state.⁶³ "Grand Goof," as Unit 1 was subsequently nicknamed, in fact threatened the region's electricity service area with an enduring economic "rate shock".

In 1986, an amendment to the Mississippi constitution was introduced and legislated into law that allowed the state legislature to deny the local taxing authority's right to impose property taxes exclusively for nuclear powered generating plants. The amendment also allowed the legislature to impose a "*special mode of valuation, assessment and levy upon nuclear-powered electrical generating plants,*" and to distribute about 70% of the county's property tax through the State to more than 44 other counties in Mississippi as the legislature saw fit. See *Burrell v. Mississippi State Tax Commission*, 536 So. 2d 848 (Miss. 1989) At the time of the proposed environmental review for construction of the additional Grand Gulf unit(s), indeed, the existing reactor, in more than twenty years of operation, had not lifted the community out of poverty. At that time, more than 32 percent of the population in Claiborne County was below the poverty level, and the county and classified as a "persistent poverty" county with an unemployment rate of 12.4 percent. That condition has only worsened. As related to Entergy's request for an Early Site Permit to expand of the Grand Gulf site's generating capacity, the Mississippi state tax code was revealed to be unique in the United States in that all of Mississippi nuclear plants were legislated exempt from all county, municipal, and district taxes. Instead, the Grand Gulf operator pays its property taxes to the State of Mississippi in a sum based on the assessed value of the plant, and the State redistributes the brunt of those funds to the other counties based on their kilowatt hour electricity usage. This position of dependency puts Claiborne County in a tenuous situation, NRC found, that may deteriorate if Entergy through SERI moved forward with this expansion project. According to the NRC 2006 Environmental Impact

⁶³ Transcript of the December 7, 1985 Hearing before United States Senate Committee on Small Business, "Potential Impact of the Grand Gulf Nuclear Powerplant on Small Business and Farmers," Testimony of the Honorable Governor of the State of Arkansas, Bill Clinton, Government Printing Office, p. 15.

Statement (2006) used to approve the NRC Early Site Permit (ESP) for expansion of the nuclear power station, while environmental justice issues were recognized as present the agency determined that they are “not applicable” to the NRC oversight or action where “*dependent on actions of the State, Dependent upon State tax allocations,*

adverse socioeconomic impacts could be disproportionate on local minority/low-income community.”⁶⁴

The State of Mississippi, Claiborne County, Entergy Corporation, the Federal Emergency Management Agency (FEMA) and the NRC have emergency planning duties and responsibilities with respect to the health and safety of surrounding communities potentially impacted by the operation of the Grand Gulf nuclear power station. Collectively, they are responsible for providing emergency services in the case of an accident at the nuclear power station plant. The fact that the majority of tax funding is being diverted from the first responder services most immediately impacted by a radiological accident amidst a high level of poverty in the county, the local agencies that are responsible for responding to an emergency at Grand Gulf have long been identified with major shortages of funding and equipment that seriously impair those agencies ability to respond to a radiological emergency. This gross negligence and adverse impact are documented and recognized by numerous declarations from persons then both currently and formerly responsible for responding to an emergency at Grand Gulf. The declarations were submitted in support of a legal intervention filed by the NAACP, Nuclear Information and Resource Service, Public Citizen and Sierra Club in response to Entergy’s Early Site Permit application to expand the nuclear power plant site. One of the submitted declarations points out that the county has only one operable fire station, despite the fact that firefighters would be called on to help evacuate the county if necessary. Additionally, bridges and roads officially designated Emergency Evacuation Routes, as exemplified by Bald Hill Road left in disrepair and impassable for four consecutive years because of lack of county funds. By imposing the danger of a radiological emergency on a community that cannot afford to respond appropriately, Claiborne County will continue to have a disproportionately high and adverse environmental effect on the impoverished and minority community.

An additional declaration filed during the expansion license from a county deputy sheriff

⁶⁴ Attachment 1, Ibid, Final Report, EIS for Grand Gulf ESP, Table 10-2, Unavoidable Environmental Impacts from Operation, p.10-7,

indicates that Claiborne County has only has ten law enforcement officers, only one of whom patrols an area at night many times the size of Washington, DC.. There is just one hospital in the county, also designated as a “first responder” in case of a radiological emergency. According to another declaration submitted by the Claiborne County hospital administrator, the hospital was in debt and unprepared to respond to a radiological emergency.⁶⁵

These findings are the result of a discriminatory tax policy and a federal regulatory process that has turned a blind eye on environmental racism allowing most of the tax

revenue from Grand Gulf to be diverted out of Claiborne County to lower the cost of Entergy’s electricity in dozens of outlying western Mississippi counties.

In Beyond Nuclear’s view, the current status of this community should be promptly reevaluated, updated and reviewed for the impacts of longstanding environmental justice issues given that the community’s risks and hazards associated with the Grand Gulf’s and the net financial burden and adverse consequences fall on local residents and taxpayers, most of whom are minority and low-income persons and families. Left unaddressed, the resulting economic burden represents a dysfunctional and inoperable radiological emergency response as well as unavailable local law enforcement services or at best significantly inadequate in support of any additional security needs of the Grand Gulf nuclear power station site.

In May 2017, Forbes contributor, Peter Reilly, submitted a column entitled, “Mississippi Taxing: Nuclear Power and Accusations of Racism,” on which he writes an update on the environmental justice issues arising out of the Grand Gulf nuclear power station.

“The law that stripped Claiborne County of its ability to tax the Grand Gulf nuclear power plant was challenged in the eighties and went up to the Mississippi Supreme Court. Ironically, the Claiborne County Board of Supervisors was one of the plaintiffs in that case. The law had required a constitutional amendment, which seems to have consumed most of the Mississippi Supreme Court’s attention in Burrell v Mississippi State Tax Commission. They did not get into the racial issues, but left an intriguing opening.

‘For the reasons enumerated below, we find in state law no legal infirmity in the scheme devised. Taxpayers residing in Grand Gulf’s home county, however, have asserted

⁶⁵ All referenced declarations docketed in the combined submittal of National Association of Colored People, /Claiborne County Chapter, Nuclear Information and Resource Services, Public Citizen and Sierra Club/Mississippi Chapter in their intervention into Entergy Corporation’s Grand Gulf Early Site Permit application proceedings before an Atomic Licensing Safety Board of the U.S. Nuclear Regulatory Commission are available upon request of Beyond Nuclear.

*claims to relief under federal law, claims which ought be heard and decided on their merits someday, somewhere. As the federal courts have declined subject matter jurisdiction, we remand with instructions that Taxpayers' federal claims be heard within the concurrent jurisdiction of the Chancery Court. (Emphasis added)*⁶⁶

Beyond Nuclear submits the attached .pdf exhibit in support of these comments, “*High Noon for Environmental Justice: Dispute over a Mississippi power plant could spell the end for race-based challenges to nuke sites.*”⁶⁷

Additionally, Beyond Nuclear provides the January 2021 PowerPoint prepared by the Department of Energy’s Pacific Northwest National Laboratory (PNNL) that identifies and affirms (“Yes”), by the laboratory’s own assessment and National Environmental Policy Act (NEPA) review, that the Grand Gulf nuclear power station has a

disproportional environmental justice impact on the minority and low-income population of Claiborne County with the impact pathway being “Community Infrastructure and Tax Revenue.”⁶⁸

Thank you for your attention to this matter.

Sincerely,

---/signed by Paul Gunter/---

Paul Gunter
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⁶⁶ “Mississippi Taxing: Nuclear Power and Accusations of Racism,” Peter Reilly, Contributor, Forbes, May 14, 2017 <https://www.forbes.com/sites/peterreilly/2017/05/14/mississippi-taxing-nuclear-power-and-accusations-ofracism/?sh=4360d59f4919>

⁶⁷ “High Noon for Environmental Justice; Dispute over a Mississippi power plant could spell the e heard within the concurrent jurisdiction of the Chancery Court,” Jason McLure, Legal Times, September 13, 2004. [See Attachment]

⁶⁸ “Environmental Justice and Nuclear Power,” Dave Anderson, Subject Matter Expert, Pacific Northwest National Laboratory (PNNL), January 2021, Table: EJ Impact Findings by Plant Site NEPA Review, p. 17, https://www.pnnl.gov/sites/default/files/media/file/PNNL_Environmental-Justice-and-NuclearPower_January2021.pdf

December 21, 2020

VIA Email

Thomas Von Essen
Regional Administrator
José G. Baquero Tirado
Federal Disaster Recovery Coordinator, Puerto Rico and USVI
Federal Emergency Management Agency Region II – DR-4339-PR
Puerto Rico Joint Recovery Office
50 State Road 165 Guaynabo, PR 00968
Attn: Puerto Rico Utilities PEA Public Comments
FEMA-EHP-DR4339@FEMA.DHS.GOV

RE: Comments Objecting to the Approval of the Programmatic Environmental Assessment: Utility Repair, Replacement, and Realignment, Commonwealth of Puerto Rico, DR-4339-PR.

Dear Messrs. Von Essen and Baquero Tirado:

Comité Diálogo Ambiental, Inc. (“CDA”), El Puente de Williamsburg, Inc. – Enlace Latino de Acción Climática (“El Puente – ELAC”), Comité Yabucoño Pro-Calidad de Vida, Inc. (“YUCAE”), Alianza Comunitaria Ambientalista del Sureste, Inc. (“ACASE”), Sierra Club Puerto Rico, Inc. (“Sierra Club PR”), Mayagüezanos por la Salud y el Ambiente, Inc. (“MSA”), Coalición de Organizaciones Anti Incineración, Inc. (“COAI”), Amigos del Río Guaynabo, Inc. (“ARG”), Campamento Contra las Cenizas en Peñuelas, Inc., and Cambio, PR, Inc., collectively known as Alianza de Energía Renovable Ahora (“AERA”) submit these comments to the Federal Emergency Management Agency (“FEMA”) Draft Programmatic Environmental Assessment: Utility Repair, Replacement, and Realignment in the Commonwealth of Puerto Rico, DR-4339-PR (“PEA”).

We submit these comments to the Draft FEMA PEA to raise concerns about the inadequacies of the PEA, the failure to address safety issues, risks, and significant adverse environmental impacts and repercussions of not preparing an Environmental Impact Assessment. The FEMA funds for which the PEA is proposed represent an opportunity to provide a lifeline to residents and businesses in Puerto Rico, especially low- and medium-income (“LMI”) communities. The comments are based on many years of work on energy issues in Puerto Rico.

BACKGROUND

The vulnerabilities and public health risks of the existing electric system

Hurricanes Irma and Maria demonstrated that the transmission and distribution (“T&D”) system that carries power from the large, centralized power plants, especially the plants in Southern Puerto Rico to the North are a key vulnerability of the Puerto Rico electric system. Moreover, the South-to-North transmission system is vulnerable to multiple types of weather events, earthquakes, vegetation growth, wildlife impacts, lack of investment in maintenance, difficult access to servitudes and easements, among others. As a matter of basic physics, the T&D’s interconnected vertical structures, will likely succumb in the next hurricane(s) even if “hardened”.

The centralized configuration and heavy dependence on South-to-North transmission in the path of hurricanes that usually make landfall in Eastern Puerto Rico and cut across the Island from east to west increases the risks of power outages. After previous hurricanes, like Hugo in 1989, Hortensia in 1996, George in 1998, when the network was presumably strong and the required maintenance was done, electricity outages lasted months because a failure in one part of the centralized grid triggered interruptions in other parts of the system and sometimes complete outages.

This year’s seismic events further demonstrated and alerted to the vulnerability of large, centralized plants and the affiliated transmission system: The Costa Sur and EcoElectrica plants in Southwestern Puerto Rico were both damaged by the earthquakes and aftershocks. Furthermore, the U.S. Geological Survey has determined that the areas where the San Juan and Palo Seco plants are located are at high risk of liquefaction in the event of earthquakes.⁶⁹ The Great Southern Puerto Rico Fault Zone runs through the Jobos Bay area where the Aguirre Power Complex and the Applied Energy System (“AES”) Corporation AES coal burning power plants are located.⁷⁰

Much of the existing energy infrastructure is in flood prone areas or at risk of impacts from sea level rise, storm surge, tsunamis or other flooding risks to the plants and T&D infrastructure. The Palo Seco plant, depot and accompanying infrastructure are in a tsunami flood area.⁷¹

⁶⁹ Jeffrey L. Bachhuber, James V. Hengesh, & Sean T. Sunderman, *Liquefaction Susceptibility of the Bayamon and San Juan Quadrangles, Puerto Rico*, at 30, Figure 6, (2008), https://earthquake.usgs.gov/cfusion/external_grants/reports/03HQGR0107.pdf (noting very high susceptibility zones in areas along the Bayamon coastal plain, Bahia de San Juan, and Laguna San Jose); James V. Hengesh, & Jeffrey L. Bachhuber, *Liquefaction susceptibility zonation map of San Juan, Puerto Rico*, in Mann, P. (ed.), *Active tectonics and seismic hazards of Puerto Rico, the Virgin Islands, and offshore areas: Geological Society of America Special Paper 385*, at 249–262 (2005).

⁷⁰ *Id.* at 250.

⁷¹ Cent. Off. for Recovery, Reconstruction and Resiliency, *The Grid Modernization of Puerto Rico* at 107, Figure 6-6 (“Map of Palo Seco Plant and Depot in Flood Area,” listing PREPA as the source of this information).

The operation of all fossil fuel plants in Puerto Rico emit multiple contaminants that adversely impact public health and the environment. The AES coal-fired power plant and the

Aguirre Power Complex located in Southeastern Puerto Rico are the two primary sources of air pollution and toxic emissions in the archipelago⁷² and disproportionately impact some of the poorest communities. These two plants also extract large amounts of freshwater from the South Coast Aquifer and have contributed to the water scarcity that led to water rationing in summer 2019 and in previous years.⁷³

The Costa Sur and EcoElectrica plants in Southwestern Puerto Rico both burn imported Liquefied Natural Gas (“LNG”, liquefied methane gas) and also transmit energy long distance using the vulnerable T&D system.

Except for the renewable energy facilities on the eastern coast of Puerto Rico, where Hurricane Maria made landfall, solar installations withstood the hurricane force winds. However, utility-scale, land-based renewable installations that depend on the vulnerable T&D system were unable to transmit power to where it was needed. Some higher-income Puerto Rico residents and businesses have installed photovoltaic systems and/or energy storage equipment on their rooftops or onsite to supply at least part of their energy needs and provide resilience. However, the upfront investments and/or high leasing costs have prevented widespread uptake of rooftop or onsite solar and storage.

The FEMA funds should support efforts to incentivize the Puerto Rico Electric Power Authority (“PREPA”) to acquire photovoltaic (“PV”) and Battery Energy Storage Systems (“BESS”) to be installed by its trained workforce in conjunction with local contractors and organized communities. Widespread onsite solar installations could subsequently provide the path to rooftop solar communities that operate as microgrids with the ability to connect and disconnect from the main grid along with energy demand management and efficiency programs and the other alternatives discussed in these comments.

Given the economic crisis in Puerto Rico, available resources, such as the FEMA funds

⁷² U.S. Env'tl. Prot. Agency, 2018 Toxic Release Inventory (TRI) Factsheet: State – Puerto Rico (Nov. 12, 2019), https://enviro.epa.gov/triexplorer/tri_factsheet.factsheet_forstate?pZip=&pParent=NAT&pCity=&pCounty=&pState=PR&pYear=2018&pDataSet=TRIQ1&pPrint=0

⁷³ See, e.g., Puerto Rico Departamento de Recursos Naturales, Orden Administrativa 2016 - 018 Para Declarar como Área Crítica los Acuíferos del Sur de los Municipios de Ponce, Juana Díaz, Santa Isabel, Salinas, Guayama, y Arroyo (June 28, 2016), <http://www.drna.pr.gov/documentos/orden-administrativa-2016-018-para-declarar-como-areacritica-los-acuiferos-del-sur-de-los-municipios-de-ponce-juana-diaz-santa-isabel-salinas-guayama-y-arroyo/>; Jason Rodríguez Grafal, Acuífero del Sur: Retrocede la única fuente de agua potable de 30 mil sureños, La Perla del Sur (May 29, 2019), <https://www.periodicolaperla.com/acuifero-del-sur-retrocede-la-unica-fuente-de-agua-potable-de30-mil-surenos1/>; U.S. Geol. Survey, USGS Water Use Data for Puerto Rico, <https://waterdata.usgs.gov/pr/nwis/wu> (last visited Mar. 5, 2020); Franquicia para el uso y aprovechamiento de aguas de AES-RO-06-10-99-PFI-70380

should be invested in options that save lives, promote local economic development, and change the trajectory of exporting billions of dollars per year for fossil fuels and power purchase payments to maintain a stagnant system. Moreover, the funds present a once-in-a-lifetime opportunity to

reduce electric system vulnerability with onsite/rooftop solar plus storage and provide a lifeline to Puerto Rico residents.

VIABLE ALTERNATIVES FOR LIFE-SAVING ELECTRIC SERVICE NOT CONSIDERED IN THE PEA

The commenters promote alternatives to central station, fossil fuel generation including the following options:

1. Energy efficiency and conservation measures;
2. Energy storage for rooftop or onsite solar photovoltaic (PV) installations;
3. Solar installations at schools, water purification and treatment plants, parking lots and similar areas;
4. Energy demand management programs that incorporate time of use incentives to address the nighttime peak and other demand response options;
5. Rooftop or onsite PV installations and solar communities as recommended in studies by the University of Puerto Rico at Mayaguez faculty.⁷⁴

Numerous civil society groups, including community, environmental, labor, professional organizations and academia co-founded and endorse the Queremos Sol Proposal (“We Want Sun”, www.queremosolpr.com) which promotes the transformation of PREPA to achieve a lifesustaining, renewable energy electric system. Reliable electric service is required to power lifesustaining medical equipment and medications. Studies have documented that the power failure after hurricane Maria led to thousands of deaths.⁷⁵ Queremos Sol proposes widescale adoption of rooftop solar + storage and is largely consistent with the Puerto Rico’s legally mandated Renewable Portfolio Standard (RPS) to achieve 20% renewable energy by 2022, 40% by 2025, 60% by 2040 and 100% renewable energy by 2050.

Studies commissioned by the Puerto Rico Energy Bureau (“PREB”) project that new solar

⁷⁴ Instituto Tropical de Energía, Ambiente y Sociedad, http://www.uprm.edu/aret/docs/Ch_1_Summary.pdf, p. 113,1-14.

⁷⁵ Tom Dreisbach, Problems With Health Care Contributed To Hurricane Maria Death Toll In Puerto Rico (2009), <https://www.npr.org/2019/02/21/696769824/problems-with-health-care-contributed-to-hurricane-maria-death-toll-in-puerto-rico>, (last visited Dec. 17, 2020).

generation will cost about 6.7 cents / kWh.⁷⁶ Furthermore, rooftop solar + storage systems have low interconnection costs and system impacts. In order to achieve the legally mandated renewable energy goals, Puerto Rico must attain a minimum of 3,750 MW of renewables and 1,500 MW of storage by August 2025 according to the Integrated Resource Plan (“IRP”) recently approved by PREB.⁷⁷

Dozens of PREPA employees are trained to implement net metering and to install and maintain rooftop solar + storage systems. These employees have completed coursework on net metering and design and installation of rooftop solar + storage systems, offered through PREPA’s Commercial Operations Training Center (“CAOC”) and Electrical System Training Center (“CASE”).⁷⁸ Employees trained through this program could install, and maintain rooftop solar + storage systems, work to interconnect the massive backlog of rooftop solar + storage systems in the interconnection queue, and implement *Comunicado Técnico* 19-02, which would allow for automatic interconnection of rooftop systems.⁷⁹

PREPA installations could be done in conjunction with local renewable energy contractors and organized community groups. When the next storm strikes Puerto Rico, these efforts would allow rooftop solar + storage systems to power microgrids for hospitals and other critical infrastructure. The advantages of enlisting PREPA to implement a rooftop or onsite solar program is that the utility already has the service relationship with households and businesses such that transaction costs and wait times can be minimized. Through PREPA, residents in the lowest income strata can access renewable energy and storage technologies. Installations by the public utility will allow for mitigation of the most risk for the highest number of beneficiaries possible.

⁷⁶ Puerto Rico Energy Bureau, Appendix A -Report on the Cost Allocation Methods and Unbundling Issues for Puerto Rico, at 61, In Re: Unbundling of the Assets of the Puerto Rico Electric Power Authority, PREB Dkt. NEPR -AP2018-0004 (Sept. 4, 2020).

⁷⁷ Puerto Rico Energy Bureau, Final Resolution and Order on the Puerto Rico Electric Power Authority’s Integrated Resource Plan, PREB Dkt. No. CEPR-AP-2018-0001, (Aug. 24, 2020). (Hereinafter, “Final Resolution and Order”)

⁷⁸ Partnership Committee Report, *Puerto Rico Public-Private Partnership for the Electric Power Transmission and Distribution System*, at 259 (2020).

<https://aepr.com/espr/QuienesSomos/Documents/Partnership%20Committee%20Report%20-%20Transmission%20and%20Distribution%20System.pdf> CASE and CAOC offer hundreds of courses and eleven certifications, including numerous courses on renewables and distributed renewables. For example, CAOC courses teach about net metering. Engineer Javier Chaparro Echevarria, PREPA Mayagüez regional administrator, approved by the State Office of Public Energy Policy (OEPPE) to teach courses on installation of Renewable Electrical Systems and Wind Turbines. One of those courses is CASE 340: Design and Installation of Photovoltaic Systems. Engineer Chaparro has also taught courses with the Colegio de Ingenieros de Puerto Rico (Puerto Rico Engineering Association).

⁷⁹ As envisioned by the Final Resolution and Order, paras. 78, 83, <https://energia.pr.gov/wpcontent/uploads/sites/7/2020/08/AP20180001-IRP-Final-Resolution-and-Order.pdf>.

A. Energy conservation, efficiency, customer engagement and demand response programs

The Queremos Sol proposal highlights the importance of energy conservation, efficiency, customer engagement, and demand response programs. During the IRP technical hearings, expert witnesses identified several cost-effective Quick-Start Energy Efficiency programs such as solar water heaters, energy efficient refrigerator incentive programs, appliance replacement programs, tuning up air conditioners or replacing very old air conditioners, expanding the Office of Energy Public Policy’s low-income weatherization program, to name a few.⁸⁰

The IRP assumes that PREPA will comply with the 2% annual reduction in load due to energy efficiency as required by the Puerto Rico Energy Public Policy Act (“Law 17-2019”), culminating in a 30% reduction in PREPA’s total load by 2040. Law 17-2019, Section 1.9(3)(B)

requires the IRP to include an evaluation of the conservation resources, including electricity demand management and the necessary programs to improve energy conservation. The Energy Bureau’s consultant highlighted that: the initial \$300M investment in energy efficiency would save \$1B in avoided generation costs over the planning period, and the next \$700M in energy efficiency spending would save an additional \$1.8B in avoided generation costs over the planning period.⁸¹

PREPA must coordinate with stakeholders in designing a customer engagement plan “to educate citizens and electric power service customers on energy efficiency, consumption reduction, distributed generation strategies, and other available tools to empower consumers to have more control over their energy consumption,” as required by Law 17-2019 Section 1.5(4)(b). In the approved IRP,⁸² PREB determined that energy efficiency programs are always the least cost resource, and that the maximum level of EE deployment should be a core provision of an approved Preferred Resource Plan. Federal funds earmarked for these programs would allow for implementation needed, energy conservation and efficiency.

B. Viability of rooftop solar, BESS, power electronics, and other alternatives

Law 17-2019 directs PREPA to “maximize the use of renewable energy” and, at the same time, “aggressively reduce the use of fossil fuels” and “minimize[e] greenhouse gas emissions...”⁸³

⁸⁰ Negociado de Energía en vivo, Evidentiary Hearing / CEPR-AP-2018-0001, YouTube (Feb. 4, 2020), <https://youtu.be/-RXb0bf5ScY?t=13532>.

⁸¹ Negociado de Energía en vivo, Evidentiary Hearing / CEPR-AP-2018-0001, YouTube (Feb. 6, 2020), <https://youtu.be/HO40ImpqKe8?t=3669>.

⁸² Final Resolution and Order, paras. 634- 635, <https://energia.pr.gov/wpcontent/uploads/sites/7/2020/08/AP20180001-IRP-Final-Resolution-and-Order.pdf>.

⁸³ Law 17-2019 Section 1.5(6)(b), Section 1.11(d).

PREPA has announced that the first tranche of the renewable energy installations will be legacy power purchase and operation agreements for utility scale, land-based installations, often on agricultural land and/or ecologically sensitive areas. These projects would depend on the existing, vulnerable T&D system that failed after Hurricane Maria and has failed after every other major hurricane in the past 30 years.

The breakdown of energy consumption by group indicates that commercial and residential clients constitute the lion's share of energy demand in Puerto Rico while industrial clients barely consume about 13% of energy generation. The commercial sector consists of sprawling malls and other installations with expansive parking lots and rooftops that can be used to site solar arrays to power operations. Much residential construction in Puerto Rico consists of single-family housing developments known as urbanizations. They are especially expansive and prevalent in the San Juan metropolitan area and can provide the onsite "rooftop resource" referenced in the Department of Energy ("DOE") commissioned studies by faculty at the University of Puerto Rico at Mayaguez ("UPRM"), recommending widespread use of existing structures to site PV installations, which also coincides with the major energy demand center in Puerto Rico.

Multiple studies have proven the resiliency of onsite photovoltaic and battery energy storage systems.⁸⁴ Renewables and BESS can serve critical loads and provide resilience. PREPA's contractor, Siemens Industry, ultimately acknowledged that renewable resources could be available immediately after a major event (e.g., hurricane, power outage). Therefore, Siemens' original assumption in the IRP that base fossil generation was indispensable was wrong.⁸⁵ Siemens's rebuttal testimony acknowledged that the June 2019 draft IRP did not recognize the full value of renewables, stating that solar panels could be certified to withstand major events, and therefore should have been considered to supply critical loads.¹⁸ In December 2019, the Energy Bureau's Energy Storage Study confirmed that "thermal resources are not required to prevent loss of critical loads."⁸⁶

⁸⁴ See National Renewable Energy Laboratory, Distributed Solar PV for Electricity System Electricity, Policy and Regulatory Considerations, <https://www.nrel.gov/docs/fy15osti/62631.pdf> (last visited Dec. 17, 2020); See Eliza Hotchkiss, How Solar PV Can Support Disaster Resiliency, <https://www.nrel.gov/state-local-tribal/blog/posts/how-solar-pv-can-support-disaster-resiliency.html> (last visited Dec. 17, 2020).

⁸⁵ In addition, Siemens did not take distributed storage into consideration. PREPA Response to the Third Discovery Request to PREPA from Local Environmental Organizations, ROI 3.56, p. 36 (Oct. 25, 2019). See Attachment 1. ¹⁸ See PREPA's Mot. to Submit Corrected Rebuttal Test., Direct Test. of Nelson Bacalao, PH.D. at 7, (Jan. 20, 2020), <https://energia.pr.gov/wp-content/uploads/sites/7/2020/01/Corrected-Rebuttal-Testimony-of-Nelson-Bacalao-PH.D.-in-Support-of-PREPAs-Draft-Integrated-Resource-Plan-CEPR-AP-2018-0001.pdf>.

⁸⁶ Puerto Rico Energy Bureau, Energy Storage Study For a Renewable and Resilient Island Grid for Puerto Rico at Section 6.1 (Dec. 19, 2019), filed in Dkt. NEPR-MI-2020-0002, <https://energia.pr.gov/wpcontent/uploads/sites/7/2020/01/NEPR-MI-2020-0002-Estudio-Sistemas-de-Almacenamiento-deEnergi%CC%81a.pdf>.

The advantages of rooftop solar are many, they include the use of existing rooftops of sprawling housing and commercial developments to avoid further impacts to open spaces, agricultural land and ecologically sensitive areas. Rooftop and onsite solar eliminates the need for large investments in transmission infrastructure. It avoids transmission losses and vulnerabilities. Grid maintenance costs are reduced and impacts to forests ecosystems and vegetation as a result of tree cutting and pruning are minimized. The rooftop solar alternative does not require establishing extensive easements or servitudes on private property while helping to lower temperatures within the structures and providing protection to the buildings. Rooftop solar installations add value to the structures and promote local wealth. Distributed generation on rooftops creates greater reinvestment in the local economy than fossil fuel projects. It enables ratepayers to become producers or ‘prosumers’ of energy not mere consumers and allows for control by residents and local communities which is particularly important during outages of the main grid as was experienced after Hurricane Maria. Rooftop solar enjoys broad civil society support as opposed to utility scale, land-based installations. The advantages of using the “roof top resource” for photovoltaic energy systems also include avoiding the use of the large quantities of fresh and salt water required by fossil fuel combustion plants, reduction in the discharges of overheated thermal waters to water bodies, reduction of entrapment of marine species by the suction systems of fossil fuel plants, avoiding the impacts of spilled chemicals and other pollutants

to marine species and vegetation, protection of public health due to a decrease in toxic emissions to air, water and land, decrease in greenhouse gases that promote climate change, among others.

PREB has recognized that renewables and especially distributed renewables have numerous benefits beyond just electric output, such as ancillary services,⁸⁷ resiliency benefits, and reduction of transmission and distribution system losses.⁸⁸ PREPA’s Status Report in the IRP case also acknowledges that distributed renewables have benefits beyond electric output.⁸⁹ Rooftop and/or onsite solar coupled with BESS, EE and other programs could provide the resiliency that residents and businesses in Puerto Rico need to save lives. Therefore, we urge the government of Puerto Rico and federal agencies to earmark the FEMA funds for these types of alternatives.

During the technical hearings in the PREPA IRP process, multiple experts provided numerous recommendations that would immediately implement onsite renewables, storage, and

⁸⁷ For example, frequency response, operating reserve, and reactive support. See Final Resolution and Order para. 862, pp. 268-269, <https://energia.pr.gov/wp-content/uploads/sites/7/2020/08/AP20180001-IRP-Final-Resolutionand-Order.pdf>.

⁸⁸ *Id.*

⁸⁹ PREPA’s Status Report in the IRP case, at 6, recognizing “T&D system loss benefits for DG/storage bids” and “potential for additional resiliency benefits.” See PREPA’s Presentation of Status Report on the Development of PREPA’s Draft Procurement Plan at p. 6 (Sept. 23, 2020), filed in Dkt. NEPR-AP-2018-0001, <https://energia.pr.gov/wp-content/uploads/sites/7/2020/10/20200923-PRESENTATION-OF-STATUS-REPORT.pdf>

energy efficiency programs, and achieve the transformation of Puerto Rico’s electric grid to better serve the people of Puerto Rico. Federal funding afforded to PREPA should be earmarked for these types of programs. On the other hand, continued reliance on large, centralized power plants and long, vulnerable South-to-North transmission lines would not promote the resilience of the electricity grid to climate related and other disasters. Hurricane Maria and the seismic events of this year showed the importance of decentralizing the power network. A distributed generation system centered on onsite/rooftop solar will be more resilient and, after an emergency, will allow for prompt restoration of energy services, fulfilling the responsibility of saving lives.

These alternatives stand in stark contrast to the use of billions of dollars in federal taxpayer funds to rebuild and “harden” the existing T&D system and add more fossil fuel generation, especially so-called “natural” methane gas infrastructure. The federal government should work with PREPA to initiate a transparent process for acquisition or procurement of solar equipment and BESS to be installed, operated, and maintained by the dozens of PREPA employees who have been trained in renewable energy technology in conjunction with local contractors and organized communities. These types of investments would create jobs and have greater multiplier effects in the Puerto Rico economy.

As noted in the proposed CDBG-MIT Action Plan; “The advantage of renewables is that while they—like the existing PREPA grid—would require significant investment upfront, they would not have the exorbitant cost of purchasing and importing fuel for those power systems, year

after year. Investment in renewable energy development could create stability not only in terms of reliable energy, but also jobs and environmental factors.” (p.158).

The original government estimates for deployment of renewables indicated figures in the order of \$4-6 Billion. In the Puerto Rico Disaster Recovery Plan, the Government of Puerto Rico requested \$4.2B to \$6.2B to increase solar energy generation.⁹⁰ The Government should reinstate the original \$6 B for rooftop/onsite solar + storage, energy efficiency and similar programs.

While the proposed CDBG-MIT plan acknowledges the extensive damage to the power grid, i.e. transmission and distribution infrastructure as a result of the 2017 hurricanes and the “longer-term timeline on a comprehensive power system overhaul”, HUD proposes to make a separate allocation of \$1.93B for power grid repairs under a separate Federal Register notice and “has prohibited the use of CDBG-MIT funds for electrical system improvements or risk mitigation until the notice is released.” Thus, erroneously underinvesting in rooftop and onsite solar as a first line of defense for Puerto Rico residents and businesses. The proposed “localized energy resilience

⁹⁰ See Transformation and Innovation in the Wake of Devastation: An Economic and Disaster Recovery Plan for Puerto Rico, pp. 297 & 318 (Aug. 8, 2018); https://reliefweb.int/sites/reliefweb.int/files/resources/pr-transformationinnovation-plan-congressional-submission-080818_0.pdf (last visited Dec. 17, 2020).

measures”, like rooftop or onsite solar and BESS are seriously underfunded.

Earmarking federal funds for the localized solar + storage through the public utility to carry out a transparent procedure for large scale acquisition of PV and BESS would serve three paramount purposes: 1-provide access to energy resiliency to the lowest income sectors of the population who would not be able to access loans, rebates or leases for solar + storage, 2-provide a uniform procedure through the public utility that would hasten the implementation of rooftop or onsite solar and storage installations and 3- break the cycle of disaster damage, reconstruction, and repeated damage of the vulnerable, centralized T&D system that so often interrupts life-saving electric service.

Rooftop and onsite solar and the other alternatives discussed above provide lifeline stability and strengthening. The investment in rooftop/onsite solar should align with the original estimates as eligible projects in the plan to “foster investment in lifeline infrastructure improvements while creating jobs.” (p. 274). However, investment in utility-scale, land-based renewable energy projects implicate a continued reliance on the existing T&D system and would not provide the resiliency benefits of rooftop/onsite renewables and storage. Rooftop solar and BESS would provide “redundant, alternative, and independent power systems”, because, as noted in the proposed CDBG-MIT plan; “Billions in federal funding have been expended on repairs yet Islandwide power outages continue to contribute to an unmet need for reliable power.” (p. 281). This will continue to be the case because centralized generation and T&D largely carrying power from the large fossil fuel plants in the South to Northern Puerto Rico, primarily the San Juan

metropolitan area will continue to be impacted by hurricanes and storms, floods, vegetation, wildlife and other hazards.

THE NATIONAL ENVIRONMENTAL POLICY ACT AND THE REGULATORY FRAMEWORK

The National Environmental Policy Act (“NEPA”) has two principal objectives: 1) The statute imposes an obligation on proponents to consider every significant aspect of the environmental impact of the proposed action; and 2) It ensures that an agency will inform the public that it adequately considered environmental concerns.⁹¹ NEPA requires agencies to systematically address the environmental impacts of their decisions and prevent overvaluation of economic benefits and undervaluing environmental effects because they may be harder to quantify.

NEPA is a way to address interrelated effects of the actions of different agencies. NEPA

⁹¹ “The purpose and function of NEPA is satisfied if Federal agencies have considered relevant environmental information, and the public has been informed regarding the decision-making process.” 40 C.F.R. 1500.1(a).

mandates the use of all practicable means to foster and promote the general welfare and to create and maintain conditions under which humans and nature can exist in productive harmony.⁹² In order to comply with NEPA, federal agencies must:

- A. Use a systematic, interdisciplinary approach to insure the integrated use of natural and social sciences and environmental criteria in decision-making.;
- B. Identify and develop methods to quantify environmental values so that they can be considered sufficiently along with economic and technical considerations; and
- C. Include an impact statement in every report on proposed legislation and other major Federal actions significantly affecting the quality of the human environment. An EIS must include a discussion of the: 1) environmental impact of the proposed action; 2) adverse environmental effects that cannot be avoided if the project is implemented; 3) alternatives to proposed action; 4) the relationship between local short-term uses of the environment and its maintenance and enhancement of longterm productivity; and 5) irreversible and irretrievable commitments of resources which would be involved. The lead agency must make the Environmental Impact Statement (“EIS”) and comments made by other agencies available to the public. ...
- E. Study and describe alternatives to the courses of action in the proposal which involve unresolved conflicts on use of resources. 42 U.S.C.A. § 4332.

NEPA prohibits segmentation of the environmental analysis of an agency action, agencies may not divide a large project into small actions which don't rise to the level of "significant."⁹³ The Council on Environmental Quality (“CEQ”) requires that "connected actions" must be

considered together in an EIS. 40 C.F.R. § 1501.3. Actions are "connected" if: i) they automatically trigger other actions which may require an EIS; ii) cannot or will not proceed unless other actions are taken previously or simultaneously; and iii) they are interdependent parts of a larger action and depend on the larger action for their justification.⁹⁴ A comprehensive EIS is necessary when several proposed actions that will have a reasonably foreseeable environmental trends and plan actions on an area are pending concurrently before an agency. 40. C.F.R. § 1502.15.

NEPA requires mitigation of environmental impacts uncovered in an EIS, *See* 40 CFR §1505.3. NEPA is a grant of authority to the agency “as a supplement to its existing authority” to protect the environmental “to the fullest extent possible”. 40 CFR §1500.6.

The *NRDC v. Morton*⁹⁵ case involved the proposed leasing of submerged federal lands off

⁹² 40 C.F.R. 1500.1(a).

⁹³ *City of W. Chicago, Ill. v. U.S. Nuclear Regulatory Comm'n*, 701 F.2d 632, 650 (7th Cir. 1983).

⁹⁴ 40 C.F.R. 1501.9(e)(1).

⁹⁵ *Nat. Res. Def. Council, Inc. v. Morton*, 458 F.2d 827 (D.C. Cir. 1972).

the coast of Louisiana for oil and gas production. An EIS showed adverse environmental effects of the proposed leases, but the agency approved the transaction. NRDC argued that the agency was required to discuss environmental effects of the alternatives, but the agency argued that no such discussion was needed, only a statement of alternatives. The court held that section 102(2)(C) requires the agency to consider alternatives and evaluate the environmental impact of those alternatives. The court further held that agencies must provide information sufficient to permit a reasoned choice of alternatives and cannot disregard alternatives that don't offer a complete solution to the problem. And agencies must discuss alternatives even if they are outside the agency's authority or if they require legislative implementation.

Courts have voided projects where the agency failed to conduct the careful, coordinated safety and environmental impact review, with robust public participation, set forth by the National Environmental Policy Act. *See, e.g., W. Watersheds Project v. Zinke*, 336 F. Supp. 3d 1204, 1212 (D. Idaho 2018)(finding that the Bureau of Land Management's practices had violated NEPA public participation requirements, and that the preclusion of public participation was irreparable harm, sufficient to warrant a preliminary injunction.) In that case, the court granted relief necessary to “remedy for present purposes the harm and hardships caused by BLM's curtailment or preclusion of the opportunity for meaningful public participation. . . which on the present record appears to violate public participation requirements of . . . NEPA.” *Id.*⁹⁶

In the major federal action contemplated in the granting of a historic amount of funds, FEMA should be guided by its administrative procedure known as, “A Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action”.⁹⁷ The Whole Community approach enables residents, emergency management practitioners, community and social service organizations and other stakeholders to collectively understand and assess the needs of communities and determine the best ways to organize and strengthen assets, capacities, and interests to achieve societal security and resilience.

⁹⁶ *See also Sierra Club v. Van Antwerp*, 719 F. Supp. 2d 77, 80 (D.D.C. 2010) (partially vacating permit and remanding to agency for NEPA violation); *Humane Soc’y of the U.S. v. Johanns*, 520 F. Supp. 2d 8, 37 (D.D.C. 2007), citing *Am. Bioscience, Inc. v. Thompson*, 269 F.3d 1077, 1084 (D.C. Cir. 2001) (“[V]acating a rule or action promulgated in violation of NEPA is the standard remedy.”); *Pub. Emps. for Envtl. Responsibility v. U.S. Fish and Wildlife Service*, 189 F. Supp. 3d 1, 2 (D.D.C. 2016) (reviewing cases and finding vacatur is the standard remedy). If vacatur is an appropriate judicial remedy for a permit issued in violation of NEPA, an order to cease operations at a facility that started operations without any permit must also be an appropriate judicial remedy. *Standing Rock Sioux Tribe v. United States Army Corps of Eng’rs*, 2020 U.S. Dist. LEXIS 117866, *38, ___ F. Supp. 3d ___, (D.D.C. 2020) (vacating agency permit and ordering that oil pipeline be shut down for failure to comply with NEPA). Indeed, agency failure to follow the requirements of NEPA opens that agency to injunctive relief from a court. *See Realty Income Tr. v. Eckerd*, 564

⁹⁷ *See A Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action*, FDOC 104-008-1 (December 2011), https://www.fema.gov/media-library-data/20130726-1813-250450649/whole_community_dec2011_2.pdf (last visited Dec. 17, 2020).

THE ENDANGERED SPECIES ACT

Section 7(a)(2) of the Endangered Species Act requires that all federal agencies ensure that their actions “are not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of” their critical habitat. 16 U.S.C. § 1536(a)(2). Federal agencies are required to consult with the U.S. Fish and Wildlife Service (FWS) to ensure that the agency actions comply with the substantive mandates of section 7(a)(2). *Id.* The ESA’s implementing regulations broadly define the scope of agency actions subject to the ESA section 7(a)(2) mandates to include the granting of licenses and permits. 50 C.F.R. § 402.02.

Under ESA Section 9, 16 U.S.C. § 1538(a)(1)(B), it is illegal for any person – whether a private or governmental entity – to “take” any endangered species of fish or wildlife listed under the ESA. By regulation, FWS has made the take prohibition applicable to threatened species. The § 7(a)(2) consultation process assists the action agency in discharging its duty to avoid jeopardy, and also affects the agency’s obligation to avoid the take of listed species by providing an incidental take statement that shields the action from liability for take incidental to an otherwise lawful activity so long as that take does not jeopardize the species.

The proposed FEMA funding for the construction of multiple infrastructure projects will adversely affect listed species. Compliance with the procedural provisions of the ESA—making the determination of the effects of the action through the consultation process—is integral to compliance with the substantive requirements of the Act. Under this statutory framework, actions that “may affect” a listed species or critical habitat may not proceed unless and until the federal agency ensures, through completion of the consultation process, that the action is not likely to cause jeopardy or adverse modification of critical habitat. 16 U.S.C. § 1536(a); 50 C.F.R. §§

F.2d 447, 456 (D.C. Cir. 1977) (“[W]hen an action is being undertaken in violation of NEPA, there is a presumption that injunctive relief should be granted against continuation of the action until the agency brings itself into compliance.”).

402.14, 402.13; see also 16 U.S.C. § 1536(d). FEMA may not permit any activity to move forward until valid consultation processes are complete for each of the species that may be affected.

Habitat degradation is probably the main trigger for the extinction wave currently being experienced. In addition to ESA requirements, as discussed above, NEPA regulations require federal agencies to study and, when required, disclose in an EIS, significant environmental impacts that may be caused by a federal action, and then “Use all practicable means” to “avoid or minimize any possible adverse effects of their actions upon the quality of the human environment” . . . “to the fullest extent possible.” (40 CFR §1500.2). The multiple infrastructure projects to be funded by FEMA present a high risk of significant impacts to endangered species and the environment. The PEA, business as usual approach is what has led to the extinction of many species.

COMMENTS TO FEMA PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

I. The Programmatic Environmental Assessment fails to provide adequate detail of the work proposed.

The PEA states that, “the electric grid includes 2,478 miles of transmission lines, 31,485 miles of overhead and underground distribution lines across the service territory, and 334 substations and transmission centers. (p.63). “All the 2,478 miles of transmission lines and remaining electrical grid infrastructure required survey and repair and 25 percent of all the structures were damaged and temporarily rebuilt” (p.73). Other sources point to 75% of T&D infrastructure damaged by Hurricane Maria.⁹⁸ The historic amount of FEMA funding and the proposed infrastructure work would be a massive undertaking, that would involve principally rebuilding, “hardening” and some undergrounding of the existing grid. The PEA presumably proposes to address the impacts of the proposed permanent work on the damaged structures and other infrastructure work. That is not explicitly stated in the PEA.

One of the main shortcomings of the PEA is the total failure to provide specific lists, descriptions, mapping or any other indication of the electric infrastructure grid work that is proposed in each area. The PEA contains generic references to rebuilding, replacement and relocation of multiple transmission and distribution towers, poles, lines, backup generators, substations and similar infrastructure that lacks any information as to the extent, magnitude, number of total miles and areas where the work would be carried out or the potential concentration of work in specific areas. For example, Hurricane Maria made landfall in the Municipality of Yabucoa but there is no information in the PEA that any area in particular, would experience more work projects and related impacts. The environmental impacts of the project alternatives in the PEA are significant, not conducive to mitigation to less than major and merit the preparation of an Environmental Impact Statement (“EIS”). A Finding of No Significant Impact (FONSI) would not

adequately address the multiple significant environmental impacts of the extensive infrastructure work proposed.

The PEA contains alarming inaccuracies concerning the Puerto Rico electric system that range from the number of generation sites to percentages of fuels used. For example, the PEA erroneously states that; “Approximately 69% of PREPA’s 5,839 megawatt (MW) generating capacity is from petroleum.” (p. 63).

II. The Programmatic Environmental Assessment fails to adequately consider alternatives to centralized fossil fuel power plants, which could lessen or eliminate the need for expensive transmission system projects.

⁹⁸ The Puerto Rico Association/College of Engineers and Surveyors determined that the onslaught of Hurricane María in 2017 damaged 2,700 transmission towers and 75% of the distribution circuits. <https://www.infraestructura2030.com/comisi%C3%B3n-de-energ%C3%ADa>.

The principal flaw of the PEA is that it fails to consider viable alternatives to the rebuilding, “hardening” and undergrounding of the existing T&D system. Passing references in the PEA to onsite solar are inadequate as a discussion of onsite solar + storage as a full-blown alternative to centralized long-distance transmission and distribution of electric power. The PEA limits solar installations to backup power at conventional fossil-fueled facilities rather than discuss solar + storage as an alternative in its own right to transform the electric system and avoid the significant adverse impacts of rebuilding or relocation of the T&D system.

As noted in the PEA, “Under the Stafford Act, FEMA has authority to provide funding for cost-effective hazard mitigation and resiliency measures for facilities damaged by Hurricane Maria. Additionally, FEMA is authorized to provide funding to eligible grant Applicants for cost-effective activities that have the purpose of reducing or eliminating risks to life and property from hazards and their effects.” (p.9). More specifically, FEMA may provide funds for “utility system restoration, replacement, upgrade, expansion, redesign, or relocation that can contribute to reducing the potential for future damages.” (p.9). The PEA indicates that it includes projects for; “supplemental power generation, transmission, and distribution facilities, including, but not limited to, wind turbines, solar farms, generators, substations, and power lines; natural gas transmission and distribution facilities.” (p.11), among others. Clearly, FEMA has the authority to fund onsite or rooftop solar + storage in a way that redesigns and relocates facilities to reduce risks to life from lack of electric service stemming from downed power lines as occurred after Hurricane Maria.

The PEA is contradictory as to additional capacity in the electric system that would result from the proposed work, on the one hand referencing “utility retrofits to accommodate greater capacity” (p.25) and subsequently alleging that “Due to limiting capacity to pre-Hurricane Maria levels, there would be no additional long-term energy demands on the Commonwealth’s utility networks.” (p.63).

New power generation would include the installation of “combined heat and power systems, rooftop solar, fossil fuel powered standby generators, battery storage, and building energy management systems” and “Associated actions will involve the construction of on-site fuel storage, installation of transmission and distribution lines, and construction of substations or switch stations.” (p.16). The mere reference to different alternatives does not satisfy NEPA requirements. The agency must discuss, explain and provide public information of each alternative. Installation of redundant power sources, including onsite stand-by generation could involve new fuel sources such as highly flammable Liquefied “Natural” Gas (“LNG”) which would need to be revaporized prior to combustion for power generation.

The references in the PEA to back-up power generation equipment that might decrease air emissions fails to acknowledge that renewables would avoid air pollution and emissions altogether as well as fossil fuel dependency. The benefits of renewables are not discussed as an alternative that would not simply reduce emissions but eliminate air pollution altogether. The proposed fossil fuel generation does not contribute to achieving the renewable energy mandate in the Puerto Rico Climate Change Mitigation Adaptation and Resilience Act or the Energy Public Policy Act. PEA

alternatives 2 and 3 are contrary to local law because they will impede or delay the distributed renewable energy goals of Law 17-2019 and the recently approved IRP. Consideration of alternatives must comply with both federal and local law. The viability of alternatives other than those listed in the PEA has been determined in the IRP and local law and must therefore be considered by FEMA in the corresponding environmental document. This PEA fails to address this issue.

The PEA is a highly biased document which cannot serve the purpose of excluding the preparation of an EIS. It not only excludes other viable alternatives as described above, but also fails to consider the environmental effects of the preferred and/ or considered alternatives. Some of those consequences are discussed in Parts I-VIII of these comments. The FEMA funding proposed in the PEA (page 9) is a major Federal action significantly affecting the quality of the environment. Among those effects are the significant negative environmental justice consequences of delaying or eliminating renewable distributed energy options.

The PEA incorporates a faulty procedural approach, a haphazard scheme for the environmental analysis for the vast array of infrastructure work proposed; “In accordance with the procedures documented in Section 1 for implementing this PEA, utility projects that constitute a more substantive action such as a new sewer treatment facility may require a supplement (sic) analysis and a SEA to fully comply with NEPA. For all Action Alternatives, a tiered EA or separate NEPA process may be required if an action’s impacts on any resource cannot be mitigated to less than major impacts according to the scale in Section 5. Construction areas, including cleared staging areas and access roads that are greater than five acres for previously disturbed areas that require minimal clearing and up to two acres for undeveloped land requiring clearing, grubbing, or ground disturbance, would be considered on a case-by-case basis to avoid any major impacts to sensitive resources. If a proposed project exceeds the geographical constraints considered for this PEA, it can be evaluated by a FEMA approved specialist for the purpose of determining if its impacts are in alignment with what has been determined herein or if additional NEPA documentation is required.” (p. 11). This supplemental analysis and tiered EA scheme is problematic and doesn’t comply with NEPA for a number of reasons: 1-It promotes segmentation of the environmental analysis; 2-Environmental review and consultation with relevant agencies is left entirely within FEMA’s discretion; 3-Public access to information is piecemeal and unduly limited; and 4-Public input and informed participation is undercut by the staggered administrative process. Allowing such broad agency procedural discretion would effectively negate an integral environmental analysis and cancel out public input.

The PEA is highly biased and skewed towards replicating the existing centralized T&D system and should not be allowed to block the preparation of an EIS. It not only excludes viable alternatives described in these comments but fails to consider the environmental effects of the preferred and/ or considered alternatives. Some of those consequences are discussed here in Parts I-VI. It must be concluded that the grant funding considered in the PEA (page 9) is a major Federal action significantly affecting the quality of the environment. Among those effects are the inevitable negative environmental justice consequences of delaying or eliminating renewable distributed

energy options.

The extent of the electric infrastructure work proposed requires the preparation of an EIS.

The proposed work includes upgrading or rebuilding up to 20 linear miles of pipeline, transmission, or distribution lines per area. Nowhere does the PEA indicate the areas where this extensive work would take place and whether some areas would be more impacted than others. Potential impacts would not be limited to land. According to PREPA, utility poles are installed between 5 and 14 feet below land surface (PREPA 2000). Water tables can be impacted by such excavations at new sites and even at previously impacted sites. Similarly, the installation of underground power lines will undoubtedly have significant environmental impacts. Flooding is by far, the most prevalent source of disaster damage in Puerto Rico according to the proposed CDBGMIT plan. Undergrounding of infrastructure may aggravate flooding, impact water courses and resources and expose infrastructure to water damage.

Infrastructure realignment or relocation outside existing Rights of Way (“ROWs”) will be determined “according to the needs of Subapplicant and engineering recommendations may involve relocation of utilities up to 200 feet from an existing ROW” and “FEMA will evaluate to determine if greater distances are consistent with this PEA on a case-by-case basis.” (p.15). Realignment of pipelines or electric powerlines could extend for up to 10 miles. The PEA fails to specify the magnitude and extent of projects that “require replacement or relocation of contiguous portions of the utility to mitigate risk and restore infrastructure.” (p.17). Relocation of utilities at greater distances from an existing ROW, could encroach on fence line communities and the environmental impacts could also be significant.

III. The Programmatic Environmental Assessment fails to adequately consider impacts to air, water, species habitats, farmland, and flooding risks.

The PEA fails to consider that the rate of decline of agricultural land in Puerto Rico has accelerated in the most recent period evaluated.⁹⁹¹⁰⁰ In the last five-year period evaluated, agricultural land in Puerto Rico has decreased from 584,987 cuerdas in 2012 to 487,774 cuerdas in 2017 representing a loss of 17%, or an annual average loss of 16,202 cuerdas.³³

The PEA acknowledges that the projects may involve “changes to topography” but fails

⁹⁹ See Attachment 2, Dr. David Sotomayor’s *Informe sobre el impacto de la construcción y operación del proyecto Montalva Solar Farm en la zona de la Reserva Agrícola del Valle de Lajas*, October 2020, Montalva Solar Project Environmental Impact Assessment Draft comments, Docket 2020-314865-REA-004636.

¹⁰⁰ Census by State - Puerto Rico | 2017 Census of Agriculture | USDA/NASS, https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Outlying_Areas/Puerto_Rico/prv1.pdf. ³⁴ See Attachment 3, October 2019 Testimony of Dan Gutman, Puerto Rico Energy Bureau Docket CEPR-AP-20180001.

to discuss how topographical alterations impact superficial and ground water flows, flood levels and sedimentation of water courses.

The current operations of PREPA's large, centralized fossil fuel powerplants are causing exceedances of the National Ambient Air Quality Standards ("NAAQS"), harming the health of the communities near these plants.³⁴ According to the PEA, the proposed additional fossil fuel generation would not help to achieve PM₁₀ attainment in the municipality of Guaynabo and would have a "negligible impact on SO_x for the municipalities of Bayamon, Catãno, Guaynabo, Salinas, San Juan, and Toa Baja". (p.25). The proposed additional fossil fuel generation would impose even more air-polluting emissions and impacts on these communities, whereas customer-sited rooftop solar + storage would remove these impacts. The PEA does not specify which projects or even how many projects involve the permanent installation of generators and would require additional permitting from PREQB and additional studies, a tiered EA or stand-alone EA if emissions exceed NAAQS levels.

Furthermore, the PEA fails to specify the extent and magnitude of "utility retrofits to accommodate greater capacity" (p.25) which would not only increase short-term minor emissions but may exceed NAAQS. These issues are ripe for review now, so a subsequent tiered EA or standalone EA for any exceedances of NAAQS would not comply with NEPA.¹⁰¹ The Puerto Rico Climate Change Mitigation Adaptation and Resilience Act mandates 20% renewable generation by 2022. This requires that all new industrial equipment not merely meet current efficiency standards but rather that the equipment eliminate or decrease emissions.

The PEA fails to acknowledge that noise from realignment or relocation of utilities could impact communities with long-term noise effects.

The PEA notes the significant adverse impacts to water resources from the four thermoelectric power plants that use large amounts of saline (seawater) for cooling, "The instream saline withdrawals totaled 2,262 Mgal/d (8,562.6 MI/d) (Molina-Rivera 2010)" but fails to acknowledge that rebuilding the T&D system will perpetuate these impacts.

The PEA's allegation that, "relocating utilities within a new or expanded ROW would have similar impacts and mitigation measures as those described for Alternative 2" (p.31) and "may have a negligible to minor direct or indirect on impact water resources, including wetlands and waterways; but would have mitigation through Section 401 and Section 404 permitting" (p. 32) is wholly unsubstantiated. The extent of the damages including flow impediment and other adverse impacts to stream and floodplain hydraulics and function cannot be characterized as "moderate". Relocation of utilities in El Yunque National Forest or a Wild and Scenic River and other sensitive ecologic areas require the preparation of an EIS. The sheer magnitude of potential relocation work

¹⁰¹ 40 C.F.R. § 93.158, 40 C.F.R. § 1501.11.

mandates an EIS.

The PEA erroneously assumes that the implementation of subsequent hydrologic analyses and mitigation measures can avoid the need to discuss significant environmental impacts. The PEA fails to first determine, as a threshold matter whether the projects would have significant impacts. FEMA must specify the number, location, magnitude and extent of projects that will impact wetlands, streams, and other Waters of the United States (“WOTUS”). As these water impacts are ripe for review now, subsequent tiered review would not comply with NEPA standards.¹⁰² The PEA acknowledges that, “certain sites could result in some fill placed within the wetland boundaries during construction” and proposes that, “Where individual projects may impact wetlands, streams, or WOTUS, FEMA would consider further tiered review”. (p.34). It is not difficult to envision a scenario where various “individual projects” in the same area could cause significant adverse impacts.

The PEA erroneously and repeatedly alleges that the, “process of relocating utilities within a new or expanded ROW would have the same impacts and mitigation measures as those described for Alternative 2”. (p.34). Similarly, the allegation that expanding a ROW including embankment and in-water work that may impact wetlands will have “minor short-term direct or indirect impacts on wetlands” (p.34). lacks credibility and is not remedied by subsequent Section 401 and Section 404 permitting because there would be no previous determination of whether the impacts are significant, can’t be mitigated and should be avoided altogether.

The PEA acknowledges that, “some utilities are location-dependent and potentially located within a floodplain, the scope of work of this alternative may have impacts to floodplains. Construction of utilities may result in alteration of the course or magnitude of floodwater.” (p.35). Yet nowhere in the PEA is there even an attempt to identify the proposed areas where the utilities would be sited and to determine whether the work proposed would have significant adverse environmental impacts or a discussion of alternatives.

The PEA asserts that in cases where the proposed changes to utility infrastructure will impact the floodplain/floodway, “FEMA will apply the 8-Step Process to assess potential impacts and practicable alternatives” and that, “Projects may require a hydrology and hydraulics report to evaluate changes to stream hydraulics in detail and compliance with local ordinance.” (p.35). The PEA contains totally unsubstantiated allegations that utility work and changes within floodplains would have “minor impact”. If the impacts are significant, an EIS is required.

The PEA fails to substantiate the conclusion that sites that result in additional impervious surfaces with indirect long-term impacts, would only have “minor impacts on floodplains and

¹⁰² 40 C.F.R. § 1501.11.

floodways”. (p.36). FEMA should list, describe and map projects in the V-zone or projects that have the potential to increase flood elevations in an EIS, not “on a case-by-case basis to determine whether this PEA applies”.

Rooftop solar + storage avoids impacts to floodplains that would be exacerbated by rebuilding utilities with increased footprints resulting in additional impervious area or trenching for placement of underground utilities, potentially impacting nearby floodplains on a long-term or permanent basis. The evaluation of each project using the FIRM panels should be part of the requisite EIS.

It is imperative that FEMA list and map the proposed projects that increase flood elevations to determine the potential significant adverse impacts in each area. A case-by-case or a project by project view, as proposed in the PEA is wholly inadequate.

The PEA erroneously concludes that the proposed work will have, “short-term and longterm negligible to minor adverse impacts to the Coastal Zone Management Area (“CZMA”), associated with upgrading systems that require additional acreage beyond what these systems currently occupy” (p.39), without specifying the specific area or the amount of additional acreage in the CZMA. The October 3, 2018 Federal Consistency Resolution Certificate cannot be used to avoid a NEPA mandated analysis of significant adverse impacts. FEMA acknowledges that realignment or relocation of utilities, will have adverse long-term impacts within the CZMA but rather than determine the extent of the impacts through an EIS, the agency proposes coordination with PRDNER and PRPB at some later time and “limit impacts to the extent possible”. (p.39). A determination of the extent and magnitude of the projects in the CZMA that allows for public information and participation is required.

Proposed mitigation of impacts through permit requirements and Best Management Practices (“BMPs”) for vegetation clearing would not be beneficial in the case of old growth forests, ecologically sensitive areas, and other ecosystems even with implementation of an approved SWPPP. FEMA must list and map the natural areas that will be impacted and prepare an EIS to analyze significant impacts.

The PEA is ambiguous as to how vegetation impacts will be addressed stating that, “the area would either revegetate on its own or be re-vegetated in accordance with the applicable permits and SWPPP.” (p.40). While acknowledging that, “Deforestation and vegetation clearing exposes areas to invasive species. Relocation of utilities and corresponding ROWs into previously undeveloped areas may cause impacts to additional acreage of vegetation.” FEMA cannot exclude public input by subsequently determining that when, “biological impacts are greater than what this PEA includes, FEMA will review those projects on a case-by-case basis to determine appropriate level of NEPA analysis.” (p.40). The subsequent, case by case approach shuts out informed public participation. NEPA requires consideration of significant environmental impacts of federal agency actions prior to proceeding.

The PEA provides no basis for the allegation that utility projects in, on, or over land, streams, and reservoirs, embankments and in-water work “would likely result in adverse shortterm

negligible to minor impacts to the habitat during construction activities”, (p.43) and fails to address significant adverse impacts to habitat, wildlife and fish.

Rather than speculate that, “at the programmatic level; the expectation is that landscaped or managed vegetation would occur within the disturbed footprint of many project areas”, (p.46). FEMA should determine, list and map the sensitive biological resources in the project areas. FEMA’s proposed review of projects for the potential occurrence of threatened and endangered species (“T&E”) species and designated critical habitat (“DCH”) in the area should be included in an EIS. Attempts to minimize impacts to T&E Species and DCH through the National Pollutant Discharge Elimination System (“NPDES”) permitting program and implementation of a SWPPP might not mitigate significant adverse impacts that could have been determined in an EIS.

Allegations in the PEA that realignment or relocation of utilities and corresponding ROWs on undisturbed lands would “have an adverse negligible to minor short-term and long-term impact on the federally-listed endangered, threatened, and proposed or candidate species and their DCH” (p.47). are not credible in the absence of indication of the specific sites.

Each project’s scope of work should be included in an EIS to determine potential significant adverse impacts to historic or prehistoric or paleontological archeological resources. The Allowances in the Second Amendment Programmatic Agreement with the Puerto Rico State Historic Preservation Office (“SHPO”) executed on November 13, 2019 (FEMA-Puerto Rico SHPO Programmatic Agreement for Section 106 Review, May 2016, Amended April 2018) cannot be used as a subterfuge to avoid NEPA analysis of significant adverse impacts on historic or prehistoric or paleontological archeological resources. The PEA acknowledges that, “Destruction or alteration of any site, structure, or object of prehistoric or paleontological importance may occur during construction. (p.52). A subsequent Section106 review process and consultation with the SHPO and “appropriate consulting parties” will not comply with NEPA standards.

IV. The Programmatic Environmental Assessment fails to include adequate public participation measures, especially concerning impacts to environmental justice communities.

Effective public participation requires specific information about realignment in farmland. It is wholly inadequate if FEMA has discretion to “consult with USDA NRCS to avoid, minimize, or mitigate the impacts” (p.21) but does not discuss the potential significant adverse impacts in a public-facing document. The assertion in the PEA that relocation of a utility “would have a minor impact on geology and soils, negligible to minor impacts on prime or important farmland, and no impacts on seismicity” (p.21) is unfounded.

The PEA fails to describe the major projects to be carried out and how they would impact EJ communities. Rebuilding and hardening the existing T&D system would perpetuate South to North transmission and central station fossil fuel plants in Southern Puerto Rico thus cementing air, water and land pollution that have significant impacts on EJ communities and would continue to disproportionately and adversely affect these low income and afro descendent populations.

The PEA indicates that the public information process would include “targeted outreach to environmental justice populations through notices to community organizations.” (p.79). Yet, no known environmental justice organizations were contacted or notified of the PEA or the comment period.

As noted in the PEA, Community of Concern (“COC”) encompasses any Environmental Justice community that may be disproportionately impacted or overburdened by an action alternative. In Puerto Rico, air quality, commercial and industrial facilities, and land use are considered when analyzing compliance with the Executive Order on Environmental Justice. (E.O. 12,898). The PEA is contradictory, on the one hand erroneously concluding that the percentage of households below the poverty level does not vary a great deal across municipalities or towns in Puerto Rico and subsequently acknowledging variations in racial makeup, income levels, and poverty rates within Puerto Rico. While noting that, “the southeast Municipalities near Arroyo and Yabucoa generally have a higher percentage of black Hispanic population than many other Municipalities”, (p.55). The PEA fails to document the high numbers of afro descendant population in Guayama, Salinas and other municipalities where the most contaminating electric power plants are located.¹⁰³ The PEA fails to consider the rooftop/onsite solar + storage alternative that could have positive, enduring multiplier effects in EJ communities, the local economy and employment rates as documented in a recent study.¹⁰⁴ The PEA erroneously claims that, “data does not exist to support a claim that the existing level of utility service is causing widespread losses of

employment and reduced access to health services.” (p.55). As noted above, the lack of electric service was linked to hundreds of deaths in the aftermath of Hurricane Maria.¹⁰⁵

The PEA contains an inadequate discussion of risks to public health and safety. The characterization of social infrastructure facilities in the PEA is limited to emergency services, schools, and hospitals and omits critical government services. The PEA erroneously equates hardening of the T&D system with resilience. Rooftop and onsite solar provides greater resilience than long distance transmission of energy, particularly South to North transmission. Hardening the existing T&D system would not necessarily make it more reliable “against future disasters”. As noted in the first section of these comments, the existing T&D system is inherently vulnerable to hurricanes, storms, vegetation growth and many other hazards. Onsite or rooftop renewable energy generation would provide greater resiliency. Based on the status of Puerto Rico’s utility networks,

¹⁰³ U.S. Census Bureau, Quickfacts for Puerto Rico; Municipality of Salinas, (last visited on Dec. 17, 2020). <https://www.census.gov/quickfacts/fact/table/PR,salinasmunicipiopoertorico/PST045219>.

¹⁰⁴ The Solar Found., Puerto Rico Solar Jobs in 2050, (2020) <https://www.thesolarfoundation.org/wpcontent/uploads/2020/09/PRSolarJobs.pdf>.

¹⁰⁵ Dreisbach, *supra* 7.

onsite/rooftop solar + storage would result in long-term benefits to the health and safety of Puerto Rico's communities. *The Programmatic Environmental Assessment fails to adequately consider resiliency concerns.* The PEA references recent earthquakes and aftershocks but fails to discuss how seismic activity could impact proposed infrastructure, including impacts to large scale utility solar projects.¹⁰⁶

Relocation of utilities could have potential significant adverse long-term impacts to public health and safety, particularly the relocation of new fossil generation. The implementation of current codes and standards in proposed work does not rule out the potential for significant adverse or cumulative impacts.

V. The Programmatic Environmental Assessment fails to adequately consider the negative effects of Liquefied Natural Gas facilities.

The PEA proposes converting generation facilities from diesel to “Natural” (Methane) Gas which in its liquid state is a highly flammable material that may pose a hazard to human health and the environment. Burning LNG at multiple facilities throughout Puerto Rico would increase public health risks. Methane gas combustion also emits increased Volatile Organic Compounds (VOCs) such as formaldehyde, benzene, toluene, hexane, and styrene.¹⁰⁷ Renewables avoid the multiple public health and safety risks of fossil fuel combustion including those discussed in the PEA such as fuel releases that increase during disasters. Renewables avoid investments in

secondary containment to prevent releases to the environment from aboveground and underground storage tanks.

The PEA or future EIS must also address the likely upstream and downstream impacts of LNG, including on fracking of natural gas and climate change. The most catastrophic environmental impact of all would be the prolonging of the fossil fuel era with huge LNG investments in North America and worldwide instead of directing those investments to renewable energy resources.

For both an EA or an EIS, the purposes of NEPA require the agency to “consider and disclose” the environmental effects of the actions it certifies. *Baltimore Gas & Elec. Co. v. Nat.*

¹⁰⁶ See, Attachment 4, Dr. José Molinelli Freytes's report: Deficiencias en el análisis de los impactos geológicos encontrados en la Declaración de Impacto Ambiental del proyecto “Montalva Solar Farm – Guánica – Lajas (Borrador – DIA), October 2020, Montalva Solar Project Environmental Impact Assessment Draft comments, Docket 2020314865-REA-004636.

¹⁰⁷ Pediatric Environmental Health Specialty Unit (PEHSU), Mount Sinai Medical School, Comments on Draft Aguirre Offshore Gasport Environmental Impact Statement, FERC Dkt. No. CP13-193, at 1-2., in Responses to Comments on the Draft Environmental Impact Statement (document pages CO-65 & CO-66) (Sept. 9, 2014), <https://www.energy.gov/sites/prod/files/2015/02/f20/EIS-0511-FEIS-Volume2-Part2-2015.pdf>.

Res. Def. Council, Inc., 462 U.S. 87, 96 (1983). So long as the agency takes a “hard look” at the environmental consequences, NEPA “does not mandate particular results.” *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989). NEPA’s “hard look” requires “discussion of the ‘significance’ of [an] indirect effect, see 40 C.F.R. § 1502.16(b) (2018), as well as ‘the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.’” *Sierra Club*, 867 F.3d at 1374 (internal citation omitted).

Indirect effects “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”¹⁰⁸ An environmental impact is reasonably foreseeable “if it is ‘sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.’” *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003) (internal citations omitted). Implicit in this requirement to analyze foreseeable effects is a duty to engage in “reasonable forecasting.” *Scientists’ Inst. for Pub. Info., Inc. v. Atomic Energy Comm’n*, 481 F.2d 1079, 1092 (D.C. Cir. 1973). However, here, FEMA failed to account for the context and intensity of the upstream and downstream emissions impacts resulting from the activities proposed in the PEA.⁴³

The indirect effects inquiry is wide-ranging. Specifically, under this standard, courts have required federal agencies to consider the indirect effects of energy-related transportation projects. In *Mid States*, for example, because a new rail line provided a more direct route from coal mines to power plants, the court held that NEPA required the Surface Transportation Board to consider the downstream impacts of burning the coal. *Mid States*, 345 F.3d at 549 (“[I]t is reasonably foreseeable – indeed, it is almost certainly true – that the proposed project will increase the longterm demand for coal and any adverse effects that result from burning coal.”); see also *Border Power Plant Working Grp. v. Dep’t of Energy*, 260 F. Supp. 2d 997, 1030 (S.D. Cal. 2003) (air quality impacts of Mexican power plant that would export electricity to the United States over new transmission line were reasonably foreseeable result of constructing transmission line).

Accordingly, “[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.” *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008).

The D.C. Circuit recently ruled in *Sierra Club v. FERC*, 867 F.3d 1357, 1371-1372 (D.C. Cir. 2017), that NEPA required the Federal Energy Regulatory Commission to consider the indirect but reasonably foreseeable impacts of natural gas pipelines which included the downstream greenhouse gas emissions resulting from burning of gas transported by the pipeline in its NEPA review. Although the Commission had claimed that it lacked information regarding

¹⁰⁸ 40 C.F.R. § 1508.8(b); see *New York v. Nuclear Regulatory Comm’n*, 681 F.3d 471, 476 (D.C. Cir. 2012).

⁴³ 40 C.F.R. § 1508.27.

the amount of gas that would be burned downstream, the Court found that the agency could “make educated assumptions” about use of gas based on its knowledge of the general capacity of the pipeline. *Sierra Club* at 1374.

Applying *Sierra Club*, federal district courts in other jurisdictions reached similar results. For example, in *San Juan Citizens All. v. U.S. Bureau of Land Mgmt.*, 326 F. Supp. 3d 1227 (D.N.M. 2018), the court rejected BLM’s claim that “consumption is not ‘an indirect effect of oil and gas production because production is not a proximate cause of GHG emissions resulting from consumption’.” *Id.* at 1242. Instead, the court ruled that BLM’s “statement is circular and worded as though it is a legal conclusion...[and] it is contrary to the reasoning in several persuasive cases that have determined that combustion emissions are an indirect effect of an agency’s decision to extract those natural resources.” *Id.*; see also *W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt.*, No. CV 16-21-GF-BMM, 2018 WL 1475470, *13 (D. Mont. Mar. 26, 2018), appeal dismissed, No. 18-35836, 2019 WL 141346 (9th Cir. Jan. 2, 2019) (finding that NEPA requires consideration of environmental consequences of the downstream combustion of the coal, oil and gas resources potentially open to development under agency plan within the NEPA document).

In *San Juan*, the court continued that “it is erroneous to fail to consider, at the earliest feasible stage, ‘the environmental consequences of the downstream combustion of the coal, oil and gas resources potentially open to development’ under the proposed agency action.” *San Juan*, 326 F. Supp. 3d at 1244. Accordingly, the court found that BLM’s action was “arbitrary” due to its failure to estimate the amount of greenhouse gas emissions which will result from consumption of the oil and gas produced as a result of the development of wells in the leased areas. *Id.*; see also *Montana Env’tl. Info. Ctr. v. U.S. Office of Surface Mining*, 274 F. Supp. 3d 1074, 1097-99 (D. Mont. 2017), amended in part, adhered to in part sub nom. *Montana Env’tl. Info. Ctr. v. U.S. Office of Surface Mining*, No. CV 15-106-M-DWM, 2017 WL 5047901 (D. Mont. Nov. 3, 2017); *Dine Citizens Against Ruining Our Env’t v. U.S. Office of Surface Mine Reclamation and Enforcement*, 82 F. Supp. 3d 1201, 1213 (D. Colo. 2015), *Dine Citizens Against Ruining our Env’t v. U.S. Office of Surface Mining Reclamation & Env’t*, 643 F. App’x 799 (10th Cir. 2016).

VI. The Programmatic Environmental Assessment fails to consider the cumulative effect of all potential impacts.

The projects proposed in the PEA are a prime example of how cumulative impacts can result from individual actions over a period. Taken together, various projects in a single area could add incremental cumulative impacts to past and foreseeable future actions. Although the PEA acknowledges that, “The scale of those impacts would depend on the number of projects implemented, the size of the projects, and locality and proximity of the projects” (p.73), no attempt is made to list, describe and pinpoint projects that may overburden specific areas. The cumulative impacts in this case stem from the presumed number of projects proposed such as the large number of transmission and distribution towers, poles and lines and new fossil generation. Although section 5.18.1 of the PEA references the 2,478 miles of transmission lines that required survey and repair and that 25 percent of all the structures were damaged and temporarily rebuilt, the PEA does not specify how many miles of T&D infrastructure would be hardened, undergrounded or

otherwise worked on.

Similarly, the PEA states that the USACE installed over 2,300 electric emergency generators in Puerto Rico as part of the recovery efforts (GAO 2018) but does not speak to the siting, capacity or any other detail of the proposed new generation. The environmental analysis in this case should include the joint projects generally referenced in the PEA. The PEA references the magnitude of impacts “described in this PEA” but contains no such description. No basis is provided for the allegation that the Action Alternatives in the PEA “would not result in major cumulative impacts”. FEMA funding will enable relocation and numerous actions that involve infrastructure. Impacts can vary widely even for projects that are similar in function, size, and locality to existing systems. For example, emissions, noise, water requirements, fuel storage and processing vary significantly by type of generation.

The cumulative impacts of temporary repairs vary substantially from more permanent arrangements such as undergrounding. Contrary to the allegations in the PEA that, “the initial installation and temporary restoration of the projects on the human environment have already occurred prior to and after Hurricane Maria.” (p.74) undergrounding would cause significant adverse impacts to land and potentially water resources. Although the extended timeframe (which is not specified in the PEA) may allow for staggering the projects, cumulative impacts can stem from past, present and foreseeable future work. The PEA acknowledges that multiple simultaneous utility projects within the same watershed will have a cumulative impact to vegetation, water quality, and soil could but for some unspecified reason, FEMA erroneously assumes “that cumulative impacts from the utility projects covered under this PEA would be shortterm and less than major.” (p.75). In sum, the PEA fails to consider the cumulative impacts of the infrastructure projects.

CONCLUSION

The extensive infrastructure work proposed in the PEA will undoubtedly entail significant adverse environmental impacts. The PEA does not comply with NEPA and the rulemaking process under the APA. The magnitude of the projects and the significant impacts that the FEMA funding would facilitate, along with the lack of specificity in the PEA regarding the projects that would be developed, impedes an adequate and objective analysis of impacts and alternatives. A programmatic environmental impact statement that discusses alternatives such as onsite, rooftop solar coupled with battery energy storage systems instead of rebuilding the existing electric transmission and distribution system is required.

We therefore respectfully request that FEMA not approve the PEA or issue a FONSI, but rather, draft a full Environmental Impact Statement to correct the inadequacies and legal errors in the environmental analysis for the extensive projects proposed and reconsider its conclusions on the basis of the corrected information.

Please feel free to contact us with any questions.

Sincerely,

s/ Ruth Santiago

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**COMMONWEALTH OF PUERTO RICO
PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU**

IN RE:

**REVIEW OF THE PUERTO RICO
ELECTRIC POWER AUTHORITY
INTEGRATED RESOURCE PLAN**

NO. CEPR-AP-2018-0001

SUBJECT:
THIRD DISCOVERY REQUESTS

**THE PUERTO RICO ELECTRIC POWER AUTHORITY RESPONSES TO THE THIRD
DISCOVERY REQUEST TO PUERTO RICO ELECTRIC POWER AUTHORITY
FROM LOCAL ENVIRONMENTAL ORGANIZATIONS**

TO THE LOCAL ENVIRONMENTAL ORGANIZATIONS:

COMES NOW the Puerto Rico Electric Power Authority and hereby submits responses to the *Third Discovery Request to Puerto Rico Electric Power Authority from Local Environmental Organizations*, dated September 20, 2019. The responses are submitted pursuant to the provisions of Article VIII of Regulation No. 8543, *Regulation on Adjudicative, Notice of Noncompliance, Rate Review and Investigation Proceedings* and also pursuant to the discovery proceedings established in the *Resolution and Order* entered on July 3, 2019.

In San Juan, Puerto Rico, this 25th day of October 2019.

/s/ Katuska Bolaños

Katuska Bolaños kbolanos@diazvaz.law

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**COMMONWEALTH OF PUERTO RICO
PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU**

IN RE: REVIEW OF THE PUERTO
RICO ELECTRIC POWER
AUTHORITY INTEGRATED
RESOURCE PLAN

NO. CEPR-AP-2018-0001

**SUBJECT: THIRD DISCOVERY
REQUESTS**

**PREPA'S RESPONSES TO LOCAL ENVIRONMENTAL ORGANIZATION'S
THIRD SET OF REQUIREMENTS OF INFORMATION**

TO: LOCAL ENVIRONMENTAL ORGANIZATIONS

Through:

pedrosaade5@gmail.com

rmurthy@earthjustice.org

FROM: PUERTO RICO ELECTRIC POWER AUTHORITY

Through its Counsel of record

PREPA objects to any Requirement of Information ("ROI") that calls for information or documents that are not in the possession, custody, or control of PREPA.

For ease of reference, the questions and requirements as set forth in the Request are herein transcribed and shown in bold previous to each answer.

Request 1

Our Discovery Request 1.03 requested "a copy of the USB drive containing PREPA's work papers delivered to the Energy Bureau on June 6, 2019." On August 8, 2019, PREPA shared a link for a SharePoint site including numerous files, including some workpapers. On August 15th, PREPA provided a response to our Discovery Request 1.03, stating that a SharePoint site would be created. PREPA's response created the implication there might have been additional workpapers, not on the first SharePoint site, responsive to our request. We therefore amend our Discovery Request 1.03 to ask whether PREPA has any additional workpapers, not on the

SharePoint site, responsive to 1.03.

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 1 PREPA confirms that all public documents and workpapers are uploaded to the SharePoint site accessible to the intervenors.

Request 2 **PREPA's responses to Local Environmental Organizations' Second Discovery Request were due on September 18th at 3pm, under the Energy Bureau's September 17th Resolution and Order. As of this date, we still have not received those responses, and request them again through this discovery request.**

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 2 On September 23, 2019 the Puerto Rico Energy Bureau granted an extension of the due date of Local Environmental Organization's Second Discovery Request due date to October 4, 2019, and PREPA submitted its responses by the new due date.

Request 3 What are the power generation costs reductions from burning methane (natural) gas at the San Juan 5&6 units?

- a) **Indicate the assumptions, calculations and reasoning that leads PREPA to conclude that the conversion to gas will result in \$150 million in fuel savings (PREPA Resolution 4620, p.2).**
- b) **Will these alleged savings benefit and result in rate reductions to PREPA ratepayers?**
- c) **What is the impact of the Jones/Merchant Marine Act on the projected savings?**
- d) **Provide documents on how the fuel savings were calculated and efforts to obtain a waiver of the**

**Jones/Merchant Marine Act for methane gas and/or
“energy commodities”.**

The following responses were provided by Nathan Pollak Director, Filsinger Energy Partners, and James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Pollak and Mr. Bowe each certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 3 a) The conversion of San Juan Units 5 and 6 to consume natural gas (with diesel fuel to remain available as a backup) will result in fuel cost savings which PREPA has estimated could amount on average to as much as \$150 million per year over the five year primary term of the Fuel Sale and Purchase Agreement, dated as of March 5, 2019, between NFEnergía LLC and PREPA (the “FSPA”). Actual savings will vary from this estimate, perhaps significantly, depending on the costs of diesel fuel and of natural gas delivered to the San Juan units, as well as the actual utilization of San Juan Units 5 and 6 over that period.

PREPA has performed a variety of analyses of the potential savings associated with the FSPA. One, completed in early 2019 before the FSPA was approved by the Energy Bureau and the Puerto Rico Financial Oversight and Management Board (“FOMB”), concluded that savings in fuel costs could amount to \$750 million over the FSPA’s five year primary term. A more fully developed fuel cost savings analysis, which utilizes conservative assumptions relating to future pricing of diesel fuel and natural gas, was subsequently prepared in response to a request from the FOMB; it is summarized in the Excel spreadsheet attached as Exhibit LEO-PREPA_ROI_3_03.xlsx. This analysis, which was performed in January 2019, indicates that under conservative assumptions regarding fuel prices and unit utilization, PREPA can expect to realize fuel cost savings over the five year primary term of the FSPA of approximately \$534 million, when comparing the FSPA pricing of delivered natural gas to the forward market price of diesel assuming operation of San Juan 5&6 at comparable dispatch levels. Note that the savings estimated in the Exhibit are based on natural gas and petroleum futures prices as of January 2019; a comparison using futures prices available currently could yield somewhat different results.

Request 3 b) Fuel cost savings will directly benefit PREPA ratepayers by a reduction in the fuel cost component reflected in consumer bills for electric service.

Request 3 c): The savings projected from the displacement of diesel by natural gas supplied under the FSPA assume compliance with the requirements of the Jones Act. That is, the projected savings do not depend on a waiver of the Jones Act provisions that preclude deliveries of LNG lifted from U.S. sources other than through vessels that are U.S. built, U.S. flagged, U.S. owned and U.S. crewed. The Fuel Price specified under the FSPA will not vary with the source of LNG delivered to San Juan Harbor. Request 3(d):

Request 3 d) See responses to items a. and c. above.

In December 2018, PREPA, together with the Governor, Secretary of State and the President of the Economic Development Bank of Puerto Rico, sought from the U.S. Department of Homeland Security and the U.S. Department of Defense a temporary waiver of the Jones Act that would permit the transportation of LNG on non-coastwise qualified vessels from U.S. domestic sources to points in Puerto Rico for use in the generation of electric energy. On August 30, 2019, the Acting Secretary of the Department of Homeland Security informed the Governor of Puerto Rico that he had determined that “any potential grant of Puerto Rico’s request for a waiver of the Jones Act is premature” and that “a waiver of the Jones Act is not warranted at this time.” PREPA expects to confer with the Governor and other Puerto Rico officials and stakeholders to determine how best to pursue relief from the provisions of the Jones Act that preclude transportation of U.S.-sourced LNG to Puerto Rico.

Request 4 What is the estimated total cost of the project for (a) conversion of San Juan units 5 & 6, (b) revaporization, (c) storage facilities, (d) pipeline infrastructure, (e) fuel costs, (f) other costs? What are the associated costs for PREPA modification and/or conversion of the San Juan 5&6 units, regasification, pipelines and any other local service facilities to enable gas combustion?

The following responses were provided by Jaime A. Umpierre Montalvo, P.E., Head of Engineering and Technical Services Division, Project Management Office, Executive Directorate, Puerto Rico Electric Power Authority, and James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Umpierre Montalvo and Mr. Bowe each certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 4 The conversion of San Juan Units 5 & 6 permitting the use of natural gas is not a PREPA CAPEX project. The conversion works are being performed in accordance with the provisions of the Fuel Sale and Purchase Agreement, dated as of March 5, 2019, between NFEnergía LLC and PREPA (the “FSPA”). Under the terms of the FSPA, NFEnergía LLC is responsible for siting, permitting, procuring, constructing and operating the LNG receiving, storage, and vaporization facilities that will support the delivery of natural gas to San Juan Units 5 & 6, and for contracting for the conversion of those Units so that they can fire natural gas as well as diesel fuel. All costs associated with these activities are borne by NFEnergía and are to be recovered through the charges for natural gas and the Manufacturing Surcharge (approximately \$833,333 per month, which amounts to \$50 million in total over the contract term) payable under the FSPA. Other than the amount of the Manufacturing Surcharge, PREPA does not possess information as to the specific project costs sought in this ROI, since they are the responsibility of NFEnergía. The estimated aggregate amount of fuel expenditures during

the term of the FSPA (5 years) is expected to be approximately \$1.5 billion, depending on market prices of natural gas over the period.

Request 5 What is the payment structure and terms of the San Juan units 5&6 conversion project, explain the details of the proposed capacity payments (RFP pg. 9, sec. IV).

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 5 The Fuel Sale and Purchase Agreement between the Puerto Rico Electric Power Authority and NFEnergía LLC (the “FSPA”) provides for the conversion of San Juan Units 5 & 6 so that they may use natural gas as their primary fuel and for the supply of natural gas delivered to the converted units for a primary term of five years, with options to extend the term by three additional periods of five years. The FSPA is the culmination of a competitive request for proposal (“RFP”) process in which PREPA sought proposals for the design, engineering, construction, supply, installation, commissioning and testing works required to make San Juan Units 5 and 6 capable of utilizing natural gas for power generation, and the supply natural gas to the converted units. This RFP was conducted in accordance with Section 205(2)(f) of Act No. 83, and included a form of fuel supply agreement in the RFP documentation.

The FSPA provides for payment each month of a Fuel Price multiplied by the Monthly Nominated Quantity, as well as the Manufacturing Surcharge, applicable taxes, and other charges owed, less the proceeds of any Mitigation Sale or other sale of any excess nomination of gas, less any Carryover Credit. The payment mechanics are discussed in Article XIII and illustrated in Exhibit E of the FSPA, which has been submitted in this proceeding and is publicly available.

NFE has agreed to fund the cost of the new infrastructure at SJ 5&6 in return for PREPA’s commitment to pay a Manufacturing Surcharge of approximately \$833,333 per month for the five-year initial term of the FSPA. The “capacity payments” to which the question refers are not really capacity payments as such. Rather, they are monthly payments which are intended to permit NFE to recover a portion of the new fuel supply infrastructure and conversion works NFE is funding under the terms of the FSPA. PREPA has negotiated a provision in the FSPA that gives it the right, should funds become available, to pay NFE a lump-sum in lieu of the monthly Manufacturing Surcharge payment. The lump-sum payment is based on the present value of the \$50 million in payments, which is approximately \$43 million at day-one using a six percent discount rate.

Please note that the FSPA contains not take-or-pay provisions that would require PREPA

to pay for gas it does not require, and therefore the total amount that could be expended under the agreement during its primary term could be less than the projected \$1.5 billion.

Note as well that the FSPA includes highly flexible Gas nomination procedures that will enable PREPA to match its requirements with available supplies.

Request 6 Can LNG carriers capable of supplying gas to the San Juan San Juan 5&6 units safely maneuver in the San Juan Harbor Army Terminal?

- a) Please provide a detailed description of any width limitations that may prevent carriers from delivering bulk LNG.**
- b) Please provide a detailed description of any depth limitations that prevent them from delivering bulk LNG.**

The following responses were provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: LNG carriers delivering LNG to the floating storage unit to be docked at Wharves A and B immediately adjacent to the San Juan steam generating plant will proceed through San Juan Harbor to a point seaward of and alongside the floating storage unit docked at Wharves A and B, which lie to the east of and are separate from the Army Terminal. The U.S. Coast Guard has determined that LNG carriers can safely transit this route and deliver LNG to the floating storage unit. Letter of Recommendation issued Sept. 26, 2018 by Captain of the Port, USCG Sector San Juan (attached as Exhibit LEOPREPA ROI_3_6.pdf).

Request 6 a): PREPA has no information regarding width limitations that could prevent carriers from delivering bulk LNG to the NFE floating storage unit. PREPA notes that under the terms of the FSPA responsibility for delivering natural gas to San Juan Units 5&6 is assumed by NFE, and accordingly it is NFE's responsibility to ensure that the vessels it employs to transport LNG through San Juan Harbor can do so in compliance with harbor constraints and any requirements imposed by the U.S. Coast Guard.

Request 6 b): b. See preceding response.

Request 7 What is the status of the US Army Corps of Engineers (USACE) San Juan Harbor improvement to widen and deepen the

navigation channels in San Juan Harbor?

deepen the navigation channels in San Juan Harbor?

The following response was provided by Jaime A. Umpierre Montalvo, P.E., Head of Engineering and Technical Services Division, Project Management Office, Executive Directorate, Puerto Rico Electric Power Authority. Mr. Umpierre Montalvo certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 7 USACE informed PREPA that it is currently in the Preconstruction, Engineering and Design Phase. Award of a construction contract to widen and deepen the harbor is currently scheduled for Spring 2021 but this date is subject to the availability of construction funds.

Request 8 Can bulk shipments of LNG sufficient to supply the proposed operation of the San Juan 5&6 units be brought into San Juan Harbor prior to the USACE project?

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 8 See the response to Request 6 above.

Request 9 What does the San Juan Harbor Pilot's Association indicate about the minimum channel width required for LNG carriers?

The following response was provided by Jaime A. Umpierre Montalvo, P.E., Head of Engineering and Technical Services Division, Project Management Office, Executive Directorate, Puerto Rico Electric Power Authority. Mr. Umpierre Montalvo certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 9 USACE informed PREPA that the project includes a 50-foot widener to both sides of Army Terminal Channel to increase the total width by 100 feet from 350 feet to 450 feet to accommodate larger vessels.

Request 10 Did Ship simulation confirm the need for construction of east and west flares for the Army Terminal Turning Basin

to improve turning maneuverability for LR2 Tankers and LNG Vessels?

The following response was provided by Jaime A. Umpierre Montalvo, P.E., Head of Engineering and Technical Services Division, Project Management Office, Executive Directorate, Puerto Rico Electric Power Authority. Mr. Umpierre Montalvo certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 10: USACE informed PREPA that the project does include eastern and western flares at the southern terminus of the Army Terminal Turning Basin to accommodate larger vessels.

Request 11 Do vessel operating costs of LNG vessels exceed those of petroleum tankers?

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 11 PREPA has not performed any analysis of the operating costs of LNG vessels as compared with the operating costs of petroleum tankers. PREPA notes that such comparisons would be difficult to perform, given the wide range of capacities of LNG vessels and petroleum tankers, the various types of vessels that could be considered “petroleum tankers,” and the variability of operating costs depending on the markets and routes served.

Request 12 Are safety zone requirements for LNG carriers 300 feet in transit and 150 feet at dock?

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 12 Safety zones relative to LNG carriers are established by the U.S. Coast Guard on a case-by-case basis. The Coast Guard has not yet established safety zones that would apply other than on a temporary basis to LNG carriers transiting San Juan Harbor and at dock within San Juan Harbor. PREPA understands that the Coast Guard is considering proposed adjustments to the current safety zone established under 33 C.F.R. § 165.754, “Safety Zone: San Juan Harbor, San Juan, PR”. The Coast Guard has received comments on this subject in Docket No. USCG-2019-0460.

In a Federal Register notice issued on September 13, 2019, the Coast Guard announced that it would establish, on a temporary basis, a safety zone for LNG carriers expected to arrive in San Juan Harbor during the period from 12:01 a.m. on August 25, 2019 until 11:59 p.m. on November 15, 2019 that is defined as “all navigable waters one half mile around each Liquefied Gas carrier entering and departing San Juan Harbor and a 50-yard radius around each vessel when moored.” Safety Zone; San Juan Harbor, San Juan, PR (notice of temporary final rule), 84 Fed. Reg. 48278, 48279 (Sept. 13, 2019) (attached as Exhibit LEO-PREPA ROI_03_12.pdf).

Request 13 Is FERC approval being sought for the import of bulk LNG to supply the San Juan plant?

- a) Has there been any application, consultation or request to FERC for LNG shipment to San Juan Harbor?**
- b) Has FERC responded to any such application, consultation or request?**
- c) Please provide copies of all documents related to LNG shipments to San Juan Harbor including but not limited to FERC and other government agency files.**

The following responses were provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 13 a) No application for FERC authorization for LNG shipment to San Juan Harbor has been filed. PREPA understands that no FERC authorization is required for the siting and operation of the NFEnergía micro fuel handling facility (the “NFE Facility”) as it is currently planned and will be configured.

Responsibility for securing all permits required for the construction and operation of the NFE Facility is NFE’s under the terms of the Fuel Sale and Purchase Agreement, dated as of March 5, 2019, between NFEnergía and PREPA. PREPA understands that representatives of NFE’s affiliate, New Fortress Energy, met with representatives of FERC staff during the fourth quarter of 2017 to discuss the jurisdictional status of what would eventually be proposed as the NFE Facility and the planned provision of natural gas through that facility to San Juan Units 5&6. We have been told that FERC staff representatives concurred with NFE’s conclusion that the proposed NFE Facility would not qualify as an “LNG terminal” as that term is defined in the Natural Gas Act and therefore would not be subject to FERC’s LNG facility siting jurisdiction under Section 3 of that Act. PREPA is aware that NFE elected not to seek a declaratory order from FERC

Request 17

Please provide a detailed description of the source of LNG for supply to the San Juan 5&6 units

- a) Will the LNG come from the United States?**
- b) Will the LNG come from Trinidad (585 nautical miles)?**
- c) Will the LNG come from Nigeria to San Juan (4,435 nautical miles)?**
- d) What are the transportation costs associated with these different sources?**
- e) Please provide all supporting documentation on the transport of gas to San Juan harbor.**

The following responses were provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 17 a) No. Absent a waiver of the Jones Act and given the unavailability of coastwise-qualified LNG carriers, no LNG sourced in the continental United States may be transported to Puerto Rico.

Request 17 b) It is possible that LNG delivered to San Juan Harbor could originate in Trinidad and Tobago. Sourcing of LNG to supply San Juan Units 5&6 under the terms of the FSPA is the responsibility of NFEnergía.

Request 17 c) It is possible that LNG delivered to San Juan Harbor could originate in Nigeria. Sourcing of LNG to supply San Juan Units 5&6 under the terms of the FSPA is the responsibility of NFEnergía.

Request 17 d) Given that the sourcing of LNG to supply San Juan Units 5&6 under the terms of the FSPA is the responsibility of NFEnergía, PREPA has no specific knowledge of the transportation costs associated with the potential sources of LNG identified in items a. through c. above.

Request 17 e) PREPA has no such documentation, since the sourcing of LNG to supply San Juan Units 5&6 under the terms of the FSPA is the responsibility of NFEnergía.

Request 18 Is there a limit on the frequency of smaller LNG vessels to San Juan Harbor?

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 18 PREPA is not aware of any limit on the frequency with which LNG vessels may transit San Juan Harbor.

Request 19 What is the status of the proposed conversion of San Juan 5 & 6 units and the micro fuel handling facility? Please provide all supporting documentation, such as status reports.

The following response was provided by Jaime A. Umpierre Montalvo, Head of Engineering and Technical Services Division, PREPA. Jaime A. Umpierre Montalvo certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 19 PREPA understands that natural gas will be available through the NFE micro fuel handling facility by the end of November 2019. See weekly update report attached as Exhibit LEO-PREPA ROI_3_19.pdf.

Request 20 Describe the proposed fuel delivery method for the conversion of the San Juan units 5 & 6 project. Please provide all supporting documentation.

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 20 Under the terms of the Fuel Sale and Purchase Agreement, dated as of March 5, 2019, between NFEnergía LLC and PREPA (the "FSPA"), NFEnergía will deliver liquified natural gas by means of a small LNG carrier that will transit San Juan Harbor to a floating storage unit to be docked at Wharves A and B immediately adjacent to the San Juan steam generating station. LNG will be transferred to that floating storage unit and will subsequently be delivered to an onshore vaporization facility where the LNG will be revaporized and delivered as natural gas via a plant pipeline and manifold to San Juan Units 5&6, where it will be consumed as fuel. The general layout of the fuel delivery system extending from the floating storage unit to San Juan Units 5&6 is depicted in Annexes B and C to the FSPA.

Request 21 Why does the conversion of San Juan 5 & 6 units project include both fuel supply and capital improvements in one

RFP/contract?

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 21 The price PREPA will pay under the Fuel Sale and Purchase Agreement, dated as of March 5, 2019, between NFEnergía LLC and PREPA (the “FSPA”) will compensate NFEnergía for both the delivery of natural gas to SJ 5 & 6 and the cost of, and presumably a return on, the capital NFEnergía will commit up front to the conversion of the SJ 5&6 turbines so that they can be fired primarily by natural gas (an amount fixed by the terms of the FSPA to a total of \$50 million, to be paid at the rate of \$10 million per year for the initial five year term). The principal advantage of this arrangement from PREPA’s perspective is that it requires PREPA to make no up-front capital investments at a time when PREPA is in no position to make such investments. That is, the FSPA structure it permits PREPA to pay for the cost of investments it is currently incapable of making over time. Another advantage of the arrangement is that it shifts essentially all risk associated with completion of the conversion and related fuel supply system construction to a third party which is experienced in completing LNG-togas delivery projects under circumstances comparable to those the SJ 5&6 conversion project presents. PREPA has concluded that an integrated “turn-key” solution that makes the fuel supplier solely responsible for delivering the turbine conversion project, coupled with a flexible gas supply arrangement, is essential to the SJ 5&6 conversion project’s success.

Under the FSPA, NFEnergía has agreed to guarantee cost, schedule, and performance with significant financial penalties in place for failing to deliver at the agreed cost and on time. NFEnergía is highly incentivized to deliver the SJ 5&6 conversion project and the required natural gas fuel supply system on time and on budget, because NFEnergía benefits if the plant is operational and performing as soon as possible, and is penalized if it is not. Therefore, the interests of NFEnergía as both conversion contractor and fuel supplier, and of PREPA as SJ 5&6 owner and fuel consumer, are well aligned. Moreover, the integrated conversion plus fuel supply solution under the FSPA affords PREPA protection from a failure to deliver natural gas through provisions which require NFEnergía to pay to PREPA the difference between the cost of delivered natural gas and diesel. It would be difficult, if not impossible, to obtain such protection without being able to call upon a single entity to deliver both the conversion works and gas supply. A major disadvantage of decoupling the conversion undertaking from the gas supply elements of the FSPA or any similar integrated solution would be that PREPA would not have the protections against delay or failure to deliver (of either the completed conversion project or delivered natural gas) which the FSPA affords it.

A “gas to power” project requires deep integration of the gas supplier and infrastructure provider to ensure that the fuel supply delivery system functions as expected from a

safety, operational, and commercial perspective. Without a single point of responsibility, projects often experience significant delays and cost overruns, and some eventually fail and are abandoned. Where generating facility construction or conversion are separated from the fuel supply element in a gas-to-power project, there is created a “project on project” risk that often renders such projects unfinanceable and thus unachievable. The integrated nature of the FSPA, with the conversion works and the supply of delivered natural gas for the initial five year term being under the control and the responsibility of a single entity, offers PREPA the fundamental advantages of minimizing project delivery risk, shifting from PREPA the burden of financing a capital project up front, and a delivered natural gas price that is very substantially lower than the cost of continuing to consume diesel and lower than the delivered price that could be achieved if the SJ 5&6 conversion undertaking were decoupled from the delivered gas supply arrangement.

Request 22 Has Mitsubishi confirmed that the units can be converted to burn gas or any other fuel (RFP, pg. 8, sec. 2.0)?

The following response was provided by Jaime A. Umpierre Montalvo, Head of Engineering and Technical Services Division, PREPA. Jaime A. Umpierre Montalvo certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 22 The model 501F combustion turbines installed at the San Juan Power Station (San Juan Units 5&6) are designed to burn natural gas and are able to burn other types of fuel, such as diesel and propane. Mitsubishi has confirmed that the units can be converted to burn gas, propane and diesel. Works to complete the conversion of San Juan Units 5 & 6 to consume natural gas as well as diesel are underway. Mitsubishi is the contractor responsible for the completion of these conversion works, and is providing emissions and heat rate performance guarantees for unit operation on natural gas.

PREPA purchased the generating facilities incorporated in San Juan Units 5&6 configured to burn only diesel because there was no natural gas available in the San Juan Harbor area at the time the facilities were purchased. PREPA considered use of propane as an alternate fuel potentially suitable for use in San Juan Units 5&6 in 2011. After receiving preliminary hazard evaluations from insurance agencies, PREPA determined not to convert those units to consume propane because the San Juan Power Plant was not designed and constructed for the use of propane in large volumes and as a result the conversion would entail high risks and would not be cost effective.

Request 23 What is the status of permitting for the San Juan units 5&6 conversion project and the micro fuel handling facility? List all the

federal and Puerto Rico permits required and the status of the permit applications, including application numbers and other identifying information. Provide copies of the permitting files.

The following response was provided by Jaime A. Umpierre Montalvo, Head of Engineering and Technical Services Division, PREPA, and Matt Lee, Managing Consultant, Filsinger Energy Partners. Jaime A. Umpierre Montalvo and Matt Lee certify that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 23 The FSPA between NFEnergía and PREPA provides for the delivery of fuel (natural gas) at the San Juan Power Plant boundary. PREPA is not responsible for the design, permitting, construction, or operation of the Micro Fuel Handling (MFH) facility. Therefore, PREPA is unable to provide a list or copies of permits related to the MFH facility. It is PREPA's understanding that NFEnergía has or will soon secure requisite permits for the MFH facility and that the permitting was coordinated through the Puerto Rico Office of Permit Management (OGPe). PREPA understands that NFEnergía has obtained the following permits and authorizations:

1. USCG Letter of Recommendation, 16610, P405-18, September 26, 2018 (Exhibit LEO-PREPA ROI_3_06.pdf)
2. USCG, Department of Homeland Security, Temporary Final Rule (33 C.F.R. Part 165), Docket No. USCG-2019-0686, RIN 1625-AA00 (Exhibit LEO-PREPA ROI_03_12.pdf)
3. Certificación Proyectos Estratégicos, Junta de Planificación Oficina del Gobernador, No. PE-2018-78-002, 4 de mayo de 2018 (Exhibit LEO-PREPA ROI_3_23 Attach 1.pdf)
4. Permiso General Consolidado (PGN) 2018-23860-PGC-003797 (Exhibit LEOPREPA ROI_3_23 Attach 2.pdf)
5. Environmental Quality Board Construction Permit (Air Permit) PFE-LC-65-02190108-II-C (Exhibit LEO-PREPA ROI_3_23 Attach 3.pdf)
6. Authorization of PREPA to present project to OGPE, Autorización y Titularidad 391476 9 de febrero de 2018 (Exhibit LEO-PREPA ROI_3_23 Attach 4.pdf)

PREPA is responsible for the permitting of San Juan Units 5 & 6 (SJ5&6) to allow for the dual-fuel conversion of the units, and PREPA has received the permits necessary to begin the conversion. The key permit for conversion and operation of SJ5&6 is contained in permit number PFE-65-0499-0365-I-II-C, which was issued by the Puerto Rico

Department of Natural and Environmental Resources on October 3, 2019. PREPA has also obtained a determination that the proposed SJ5&6 conversion project will not result in significant impacts on the environment. See Ley 141, Evaluación Ambiental, No. 14119-0193 (attached as Exhibit LEO-PREPA ROI_3_23 Attach 5.pdf).

The conversion of SJ5&6 is not subject to Federal Prevention of Significant Deterioration (PSD) regulations, as the conversion will not result in a “significant increase” in emissions. The United States Environmental Protection Agency (USEPA) has reviewed the PSD Non-Applicability Analysis for SJ5&6, and a copy of USEPA’s response is attached for convenience (Exhibit LEO-PREPA ROI_3_23 Attach 6.pdf).

Request 24 How does the micro fuel handling facility relate to the land-based LNG project?

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 24 The micro fuel handling facility is currently being constructed by NFEnergía and will be owned and operated by that entity. The land-based LNG project described in the IRP Main Report is presented as one potential means of supporting receipts of LNG and deliveries of natural gas to both San Juan Units 5&6 and a new gasfired combined cycle combustion turbine that may be constructed at the existing Palo Seco generating facility site. There is not necessarily any relationship between the two projects. It is possible that a new land-based LNG receiving facility could be developed for the purpose of supplying the San Juan 5&6 generating facilities as well as a new Palo Seco generating facility; if so, this facility might supplant the micro fuel handling facility as the source of natural gas that would be consumed in San Juan Unites 5&6 (in this case, the micro fuel handling facility would presumably remain in place and operational to the support truck and ISO container loading operations for which the micro fuel handling facility was originally developed). It may also be possible that the micro fuel handling facility could be expanded so that it would have the capacity to supply natural gas to San Juan 5&6 and a new Palo Seco generating facility; in this case, the micro fuel handling facility would take on the functions the IRP describes the land-based LNG facility in San Juan Harbor as performing.

Request 25 Indicate and explain whether the CO2 emission rate in Exhibit 8-21 includes emissions from revaporization / regasification.

The following response was provided by Matt Lee, Managing Consultant, Filsinger Energy Partners. Matt Lee certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 25: The fuel supply contract between NFE and PREPA is for the supply of natural gas at the San Juan Power Plant boundary. Therefore, emissions associated with regasification for natural gas supplied to SJ5&6 are not included in Exhibit 8-21. Please note that for new combined-cycle gas turbine generators (CCGTs) listed in Exhibit 8-21 and 8-22, it is assumed that regasification will be an integral part of the mass and energy balance for the system. What this means is that inlet air chilling for the gas turbines would provide the energy required for the regasification of natural gas. External energy sources would only be required for start-up and shutdown.

Request 26 Please provide the estimated change in greenhouse gas emissions, both per MWh and annually, that will result from conversion of San Juan 5 & 6. Please include all emissions from revaporization/regasification in those estimates.

The following response was provided by Matt Lee, Managing Consultant, Filsinger Energy Partners. Matt Lee certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 26: As presented in the metrics files for the ESM Plan, CO2 emissions associated with natural gas combustion in SJ5&6 are estimated at 852 lbs/MWhr (average 2020 through 2024). As a comparison, the model assumes 1,335 lbs/MWhr of CO2 for diesel fuel-fired CCGTs. Average emissions for CO2 from SJ5&6 were modeled at 667,374 tons per year between 2020 and 2024.

PREPA does not have information related to the design or fuel consumption of the regasification units, as they are part of NFE's MFH facility. Therefore, PREPA is unable to provide CO2 emissions estimates related to regasification.

Request 27 Does the IRP assume that substantial amounts of renewables cannot be incorporated into the grid without new fossil generation? New Combined Cycle Units burning gas?

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consulting and Jack Henry, PE, Senior Staff Consultant, Siemens PTI. Nelson Bacalao and Jack Henry certify that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

2016. ‘

- Unit 4 (limited use unit) has been out of service since December 2016.
- Unit 5 is in compliance with the following major MATS requirements: (i) emissions limits imposed for PM demonstrated through PM Continuous Emissions Monitoring System; (ii) fuel moisture content no greater than 1.0 % by weight; (iii) tune-up practice standards and startup and shutdown work practice standards (hereinafter, “Work Practice Standards”); and (iv) the outages and quality assurance program.
- Unit 6 is in compliance with the following major MATS requirements: (i) emissions limits imposed for PM demonstrated through PM Continuous Emissions Monitoring System; (ii) fuel moisture content no greater than 1.0 % by weight; (iii) Work Practice Standards; and (iv) the outages and quality assurance program.

Palo Seco Plant: Units 1, 2, 3, and 4 are subject to MATS.

- Unit 1 (limited use unit) is in compliance with the following major MATS requirements: (i) heat input-based limit of 8% annual capacity factor; (ii) fuel moisture content no greater than 1.0 % by weight; and (iii) Work Practice Standards.
- Unit 2 has been out of service since December 2016.
- Unit 3 is in compliance with the following major MATS requirements: (i) fuel moisture content no greater than 1.0 % by weight; and (ii) Work Practice Standards.
- Unit 4 has only been in service for less than a month (May 22-June 21-2019) since 2016. In that short window of operations, Unit 4 was in compliance with (i) fuel moisture content no greater than 1.0 % by weight; (ii) Work Practice Standards; and (iii) the outages and quality assurance program.

San Juan Plant: Units 7, 8, 9, and 10 are subject to MATS.

- Unit 7 (limited use unit) is in compliance with the following major MATS requirements: (i) fuel moisture content no greater

than 1.0 % by weight; and (ii) Work Practice Standards.

- Unit 8 (limited use unit) is in compliance with the following major MATS requirements: (i) heat input-based limit of 8% annual capacity factor; (ii) fuel moisture content no greater than 1.0 % by weight; (iii) Work Practice Standards.
- Unit 9 is in compliance with the following major MATS requirements: (i) fuel moisture content no greater than 1.0 % by weight; (ii) Work Practice Standards; and (iii) the outages and quality assurance program.
- Unit 10 has been out of service since March 2016.

Request 29 What is PREPA's projected annual LNG demand for the Palo Seco plant? Please provide that analysis and all supporting documentation.

The following response was provided by Peter Hubbard, Manager Siemens PTI EBA. Peter Hubbard certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 29 Several of the scenarios call for a 302 MW F-Class CCGT to be built at Palo Seco by 2025. With a heat rate of 7.25 MMBtu/MWh, the annual fuel consumption of this F-class unit at Palo Seco at a 100% load factor would be 19.2 Bcf/year or 0.4 MMtpa.

Request 30 What is the status of the Yabucoa LNG project? Please provide all supporting documentation.

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 30 The Yabucoa LNG project is one of the resource additions included as an option in the Energy System Modernization Plan and the Action Plan that has emerged from the IRP process. As noted in the IRP Main Report, the Yabucoa LNG project (consisting of an LNG receiving facility and a new 302 MW combined cycle gas turbine) would be developed as a hedge against resource development and deployment uncertainties. The basis for this approach is described at Section 1.2 of the IRP Main

Report:

Siemens recommends that PREPA proceed with the preliminary permitting and planning activities for the Yabucoa CCGT and the Mayagüez Peaker conversion together with their associated ship-based LNG delivery infrastructure, in addition to the new CCGT at Cost Sur. The intent would be that, prior to making any large contractual commitments for equipment purchase or construction for these projects, PREPA would reassess which combination of these project provide best option for the PREPA system. Proceeding with only the preliminary permitting and planning activities for each of these project preserves PREPA's ability to select either the plan described by ESM, S4S2 or S4S2S9 depending on the future circumstances. Proceeding with the preliminary activities for these projects will provide PREPA approximately two years to three years to allow some of the uncertainties to be resolved and formulate a clearer understanding of the potential need for the projects.

No development activities or requests for information relating to the Yabucoa LNG project have yet been initiated.

Request 31 What is the status of the Mayaguez LNG project? Please provide all supporting documentation.

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 31 The Mayagüez LNG project is among the resource additions included as an option in the Energy System Modernization Plan and the Action Plan that has emerged from the IRP process. As noted in the IRP Main Report, the Mayagüez LNG project (which would consist of the conversion of 200 MW of existing combustion turbine peaking units to consume natural gas, as well as the development of an LNG receiving facility) would be developed as a hedge against resource development and deployment uncertainties. See the preceding response for an explanation of the rationale underlying this approach.

By Request for Information issued May 30, 2019 (PREPA RFI No. 93156, Natural Gas Supply for Mayagüez Power Plant), PREPA solicited feedback and recommendations from the fuel supply industry for the supply of gasified natural gas for consumption at PREPA's existing Mayagüez Power Plant. PREPA has received eight responses to this Request for Information. It is currently developing a Request for Proposals that will invite project proponents to offer proposals for the development of the required LNG and natural gas infrastructure and the conversion of the existing Mayagüez peaking units.

Request 32 Please refer to PREPA's answer to PREB-PREPA-04-24:

- a) **Has PREPA considered the ability to deliver fuel to gas-fired plants during extreme weather events?**
- b) **Has PREPA considered potential increased costs for delivering fuel to these plants during extreme weather events?**

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 32 a) PREPA is aware of the importance of ensuring that natural gas can be delivered to gas-fired generating facilities during extreme weather events. It has contracted for the delivery of natural gas to its Costa Sur and San Juan 5&6 facilities on a firm basis in accordance with nominations PREPA will provide to the suppliers from time to time, and in this way has obligated the suppliers to take such measures as may be required to ensure that adequate quantities of LNG are available in storage adjacent to the Costa Sur and San Juan 5&6 generating facilities to support natural gas use in the generation of power during extreme weather events. In addition, PREPA has maintained the ability to consume diesel or other petroleum-based fuels in the Costa Sur and San Juan Units 5&6 in the event that natural gas becomes unavailable, whether because of adverse weather conditions or LNG facilities upsets. Such diesel supplies will be held in storage at the generating facility sites, or will be delivered to the generating sites from remote storage by pipeline. Deliveries of fuel from local storage or by pipeline is highly unlikely to be interrupted for any sustained period of time by an extreme weather event.

The analyses referenced in the response to PREB-PREPA-04-24 assume that all critical loads within individual Minigrids are covered by thermal resources as a means of ensuring system resilience in the face of extreme weather events (e.g., hurricane or tropical storm conditions, which typically include heavy rain for sustained periods). In such conditions, (i) solar generation resources are likely to be incapable of generating at anywhere close to their rated capacity, and may be damaged in a manner that limits their capability even following the conclusion of the event, (ii) wind generation resources may need to be taken offline and may sustain damage limiting their availability post-event, and (iii) battery energy storage systems are likely to be discharged during and immediately following the event and unavailable as reliable sources of energy for some period thereafter. In such conditions, thermal resources with supplies of fuel available in storage on-site (such as LNG or diesel in tanks at the generating facility site), or for delivery by pipeline from a source of stored fuel, are more likely to be available and capable of serving critical loads during and immediately following an extreme weather event than non-thermal resources, such as solar, wind and battery energy storage facilities. The thermal resources assumed to be available to serve critical loads in the analysis shown at page 2-18 of Appendix 1 will all have on-site or proximate fuel storage or access to fuel storage by pipeline, and therefore (assuming fuel inventories in storage are properly managed) will be able to be

dispatched on during and for some period following an extreme weather event while drawing on stored fuel supplies. The operation of these resources during and for some period following an extreme weather event therefore should not be affected by a weatherrelated interruption in deliveries of natural gas from remote sources of supply..

Request 32 b) PREPA's natural gas supply agreements prescribe commodity prices that are derived from published indices as well as stated delivery cost components. The obligation to deliver natural gas to PREPA's generating facilities in accordance with the gas supply agreements, including the pricing provisions, is the fuel supplier's (Naturgy, in the case of Costa Sur, and NFEnergía in the case of SJ 5&6), and the suppliers bear the cost of delivering fuel to the generating facilities. PREPA's gas supply agreements do not include provisions that would permit the supplier to impose a surcharge or otherwise pass on directly to PREPA increased delivery costs resulting from extreme weather events. PREPA could confront some increase in the cost of fuel consumed in its gasfired generating facilities in the event it is required switch to diesel or other petroleum fuel because natural gas is temporarily unavailable, whether by reason of adverse weather events or otherwise.

Request 33 Is PREPA aware of any offtakers who have made commitments to take gas from PREPA's proposed terminals?

The following response was provided by James F. Bowe, Jr., Partner, King & Spalding LLP. Mr. Bowe certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 33 PREPA is not aware that any offtakers have made commitments to take gas from LNG terminals that may be developed to provide natural gas supply to existing or proposed gas-fired generating facilities in Puerto Rico. PREPA is aware that NFEnergía intends to supply LNG by means of truck and ISO containers from the micro fuel handling facility it is currently constructing; PREPA has no knowledge as to the identity of any entities that may have contracted for supplies of LNG that will be delivered through the NFEnergía micro fuel handling facility.

Request 34 Refer to the New Fortress contract, which includes the following costs for gas:

**Fuel Sale and Purchase Agreement NFE Contract
Exhibit C - Fuel Price Unit Cost:**

Transitional supply period and months 1-12 of initial contract term of \$8.50/MMBtu (base cost)

\$7.50/MMBtu for months 13-24 of the Initial Contract Term

\$6.50/MMBtu for months 25 until the end of the Initial Contract Term

During any extension term -- an amount per MMBtu to be agreed upon

Unit Fuel Cost: Gas Index Price x 115%=\$12 MMBtu Plus *NG

Manufacturing Surcharge \$50M \$833,000 per month

For the IRP, Siemens modeled natural gas as 115% of Henry Hub plus \$4.35 per MMBtu. Please provide a detailed explanation of the difference between Siemens' modeled costs for gas, and the New Fortress Contract's costs for gas.

The following response was provided by Peter Hubbard, Manager Siemens PTI EBA. Peter Hubbard certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 34 The formula of 115% of Henry Hub plus a \$4.35/MMBtu adder is based on current contracting practices at Sabine Pass, Freeport LNG, and other Gulf Coast liquefaction facilities. Many of these existing LNG contracts are based on a 15% adder to the Henry Hub price index, plus an additional tolling fee for liquefaction. Siemens assumed a \$2.80/MMBtu tolling fee for liquefaction. Once the LNG is free on board, Siemens assume a \$1.00/MMBtu round trip transportation to Puerto Rico, plus \$0.55/MMBtu for margin (profit). The 115% Henry Hub + \$4.35/MMBtu adder represents a liquid and competitive LNG market price point and assumes that Puerto Rico will be successful in seeking a waiver to the Jones Act. The information provided in this question regarding the New Fortress Energy contract would appear to indicate the commercial price structure is factoring in higher costs and/or risks during the initial few years, compared with a level adder of \$4.35/MMBtu for the model.

Request 35 What is the annual volume of coal combustion residuals and/or Agremax (CCRs) that the AES Puerto Rico plant generates?

The following response was provided by Efran Paredes Maisonet, Director of Planning

and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 42 Please refer this question to AES.

Request 42 a) Please refer this question to AES.

Request 42 b) Please refer this question to AES.

Request 42 c) No, AES is responsible for these costs.

Request 43 **Has Fluence, the joint venture created by AES and Siemens Industry participated in requests for proposals, requests for qualifications and/or bidding for electric system equipment or services in Puerto Rico? If so, please provide the documents.**

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consulting Siemens PTI. Nelson Bacalao certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 43: All Siemens Industry Inc. Power Technologies International (Siemens PTI) personnel engaged in the IRP has stopped any contacts with Fluence in connection with Puerto Rico, hence we ignore if they have or have not participated in any process.

Request 44 **Does Siemens Industry have other contracts with PREPA in addition to the IRP contract? If so, please list them and provide copies.**

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 44: The information requested is not available at this moment. PREPA will provide the requested information as soon as it becomes available.

Request 45 **Has Siemens Industry participated in requests for proposals, requests for qualifications and/or bidding for electric system equipment or services in Puerto Rico? If so,**

please provide the documents.

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 45: The information requested is not available at this moment. PREPA will provide the requested information as soon as it becomes available.

Request 46 Does Siemens Industry sell combined cycle electric generation units and other electric industry equipment called for in the draft IRP?

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant and Jack Henry, PE, Senior Staff Consultant, Siemens PTI. Nelson Bacalao and Jack Henry certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 46: Combined cycle electric generation units and other electrical industry equipment are products of Siemens Energy which is a sister company albeit separated with fire walls and independent in responses to RFPs and RFQs. Siemens Industry Inc. Power Technologies International (Siemens PTI) personnel engaged in the IRP has severed contact with other sister companies any dealings with Puerto Rico.

Request 47 Has Siemens or PREPA considered carbon pricing scenarios? If so, provide the documentation.

The following response was provided by Jack Henry, PE, Senior Staff Consultant, Siemens PTI. Jack Henry certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 47 Carbon pricing was not included in the original scope of work. As a response to questions from the PREB, PREB-PREPA-06-03 requested carbon pricing analysis on three scenarios. The documentation can be found in the response to that ROI.

Request 48 At the September 4, 2019 Initial Technical Hearing¹, Dr. Bacalao explained that PREPA Transmission and Siemens had identified a number of substations with strong transmission capability, that could accommodate additional interconnections for renewable resources.

- a) **Please provide that list of substations, with the location of each substation, and the amount of additional MW of interconnection capability each can accommodate.**
- b) **Dr. Bacalao explained that next, Siemens and PREPA conducted mapping, assigning a certain amount of renewable resources to some of these substations. Please provide those mapping documents, and all supporting documentation.**

The following response was provided by Jack Henry, PE, Senior Staff Consultant and Nelson Bacalao, PhD, Senior Manager Consulting, Siemens PTI. Jack Henry and Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 48 a) The initial mapping was determined by looking at the getaway at strong buses in the PREPA system. This was done to minimize the number of actual modeling nodes to be used in the IRP. The actual location of new renewable installations is unknown until developers select locations. It should be noted that any location selected by a developer will require impact/facility studies to determine the impacts at the interconnection point and across the system. Any interconnection will need to comply with interconnection standards.

Siemens PTI and PREPA reviewed the list of strong nodes and selected a subset of those nodes which are best suited for resource modeling for the IRP. The list provided shows the new buses modeled in the PREPA system, where the buses inject power at the high voltage level and how much generation might be injected at those new buses. The new buses modeled include nodes for Distributed Generation (these were modeled at a representative location rather than focusing on actual interconnections at the distribution feeder level), new Renewable Resources and new Thermal resources. Please refer to file LEO-PREPA ROI_3_48 Attach 1.xlsx.

Request 48 b) The mapping of new generation facilities from the LTCE runs was mapped to the generator bus models determined by the Minigrids and then spreading the installations between the generator buses in those Minigrids.

Request 49

Provide documents concerning the land availability for utility scale renewable energy projects in Puerto Rico considerations mentioned by Mr. Bacalao in his testimony at the Initial Technical Conference.

The following response was provided by Nelson Bacalao, PhD, Senior Manager

Consultant. Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

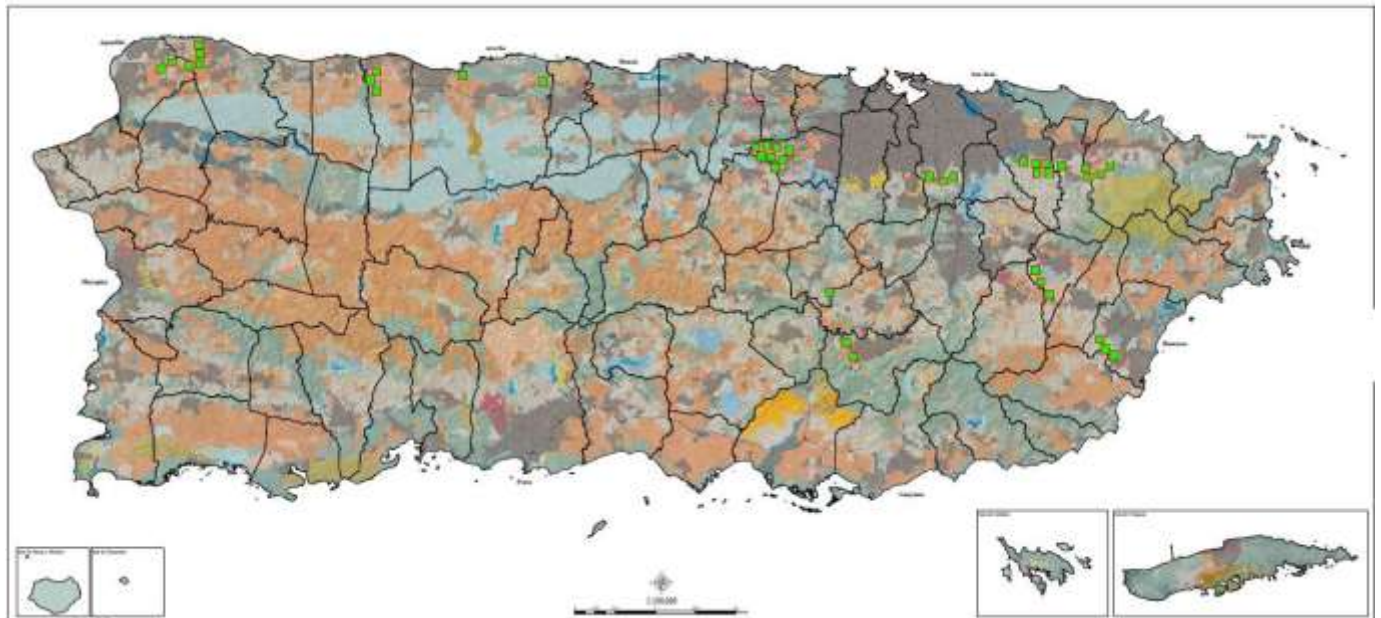
Response: Request 49: We understand that utility scale PV can be located in land designated Rustico Comun, the figure below shows the areas in PR with this zone type (brown) and the table also below indicates that if all this area were utilized more than 58 GW of PV could be installed considering 7.5 Acres per MW. Finally, in the figure below the green rectangles show a potential location of 2,600 MW of PV.

Table 1: Coverage of land by type and amount of PV that could be located

Zona	Descripción	Area M ²	Cuerdas	Acres	MW pv @ 7 Acres/ 1 MW	MW PV @ 7.5 Acres/ 1 MW
AGUA	Agua	102,768,026.32	26,149.63	25,394.51	3,627.79	3,385.93
SRC	Suelo Rústico Común	1,789,114,054.86	455,245.31	442,099.32	63,157.05	58,946.58
SREP	Suelo Rústico Especialmente Protegido	110,728,480.40	28,175.19	27,361.58	3,908.80	3,648.21
SREP-A	Suelo Rústico Especialmente Protegido Agrícola	2,329,417,847.63	592,727.19	575,611.18	82,230.17	76,748.16
SREP-AE	Suelo Rústico Especialmente Protegido Agrícola y Ecológico	53,419,815.97	13,592.83	13,200.31	1,885.76	1,760.04
SREP-AH	Suelo Rústico Especialmente Protegido Agrícola e Hídrico	116,195,201.79	29,566.21	28,712.43	4,101.78	3,828.32
SREP-AP	Suelo Rústico Especialmente Protegido Agrícola y de Paisaje	6,957,529.25	1,770.36	1,719.24	245.61	229.23
SREP-E	Suelo Rústico Especialmente Protegido Ecológico	1,795,065,584.76	456,759.69	443,569.97	63,367.14	59,142.66
SREP-EA	Suelo Rústico Especialmente Protegido Ecológico y Agrícola	29,444,187.17	7,492.16	7,275.81	1,039.40	970.11
SREP-EH	Suelo Rústico Especialmente Protegido Ecológico e Hídrico	611,203,528.92	155,522.53	151,031.55	21,575.94	20,137.54

SREP-EP	Suelo Rústico Especialmente Protegido Ecológico y de Paisaje	194,278,727.46	49,434.79	48,007.28	6,858.18	6,400.97
SREP-H	Suelo Rústico Especialmente Protegido Hídrico	69,650,703.76	17,722.83	17,211.05	2,458.72	2,294.81
SREP-P	Suelo Rústico Especialmente Protegido de Paisaje	44,338,520.35	11,282.07	10,956.28	1,565.18	1,460.84
SU	Suelo Urbano	1,190,638,289.31	302,961.40	294,212.87	42,030.41	39,228.38
SURNP	Suelo Urbanizable No Programado	26,991,811.43	6,868.15	6,669.82	952.83	889.31
SURP	Suelo Urbanizable Programado	41,695,542.29	10,609.55	10,303.18	1,471.88	1,373.76
VIAL	Vial	364,968,247.00	92,867.24	90,185.54	12,883.65	12,024.74

Figure 1: Land Use Map of Puerto Rico (Brown =Rustico Comun)



Request 50 Provide the documentation, including the forecast which shows how Siemens and/or PREPA calculated the cap on customer-owned generation at 1176 MW.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant. Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 50 It is not a cap; it is the final value of the forecast. See response to PREB ROI 1 – 18 – c for further details on the forecasting model.

Request 51 Provide documentation on any assessments or evaluations of the remaining life, and the operation and

maintenance costs to continue operating, PREPA's existing peaking units.

The following response was provided by Daniel Hernandez Morales, Director of Generation, PREPA. Daniel Hernandez Morales certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 51: There are no useful service life studies on the current fleet of Frame 5 units, as they are already well past their service life as per industry standards. They are being kept in service and maintained due to their need in the electric grid, while their replacement takes place. Please refer to LEO-PREPA ROI_3_51 Attach 1.pdf for an updated report on availability and estimated operation years before their next major overhaul, based on their actual usage per year.

Request 52 Does PREPA plan to establish any program to incentivize customerowned generation?

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 52 The main incentive for customer-owned generation in Puerto Rico is the Net Metering Program established by Act 114-2007 as amended. It provides significant incentives for customers to install renewable energy systems in their premises.

Act 83-2010, as amended, includes financial incentives for certain types of customer owned generation. The regulations on microgrids and wheeling being worked on by the Puerto Rico Energy Bureau will also incentivize customer-owned generation. PREPA provides regulations addressing interconnection procedures and requirements to cover technical aspects and facilitate the interconnection of such systems.

Request 53 Are interconnection procedures the same for utility scale renewable energy systems and customer-owned generation? Please explain your response. Explain the PREPA-specific cost for interconnection. How does that compare with rooftop solar and customer self-supply?

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or

misleading information has been provided.

Response: Request 53 Interconnection procedures for utility scale renewable energy systems and customer owned generation are not the same, as there are important differences in capacity, interconnection requirements and modes of operations between these two types of systems. Interconnection requirements for customer owned generation are specified in the corresponding PREPA regulations. Interconnection requirements for utility scale renewable energy systems are established in the corresponding contract.

Request 54 Please refer to Exhibits 8-37 and 8-38. Provide the estimated annual costs of customer-owned generation and PREPA rates.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant. Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 54 The exhibits in reference were designed to perform a comparison of rates, not to estimate the annual costs. Such exercise is beyond the scope of the IRP as it depends heavily on the consumption patterns of each customer.

Request 55 How was the non-generation (Non-Fuel + Power Purchase) rate calculated at 14.2 cents per kWh in the IRP?

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant. Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 55 This value was not calculated in the IRP but it was provided as an estimation of other costs by PREPA's financial advisors. The cost includes the total transmission and distribution costs and administrative charges and hence beyond the values assessed in the IRP.

Request 56 Does Siemens assume that customer-owned generation will remain connected to the PREPA system?

a) If so, provide all analysis and documentation supporting that assumption.

b) Did Siemens account for the possibility that customerowned generation would include storage? If

so, please provide all analysis and documentation supporting that assumption.

The following response was provided by Nelson Bacalao, PhD, Senior Manager, Consulting, and Jack Henry, PE, Senior Staff Consultant, Siemens PTI. Nelson Bacalao and Jack Henry certify that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 56 Siemens PTI assumed that customer-owned generation would remain connected to the PREPA system and this is based on the premise that: a) the IRP will result in a reliable and resilient system, b) net-metering will continue for the foreseeable future so customers can use PREPA's system as a zero cost storage; inject the energy during the day and extract it at night with full compensation.

Request 56 a) See response above.

Request 56 b) Conservatively we did not assume any customer owned storage thus ensuring that there would be provisions for this storage at the utility level. Moreover, for the reasons explained in the response above under the conditions the IRP is to create there would be little incentive for customer owned storage.

Request 57 How much of the existing or proposed energy infrastructure is in flood prone areas?

- a) Please provide all documents related to sea level rise, storm surge, or other flooding risk Siemens and/or PREPA reviewed during the preparation of this IRP.**
- b) Please explain how, if at all, those documents influenced the choice of locations for new power plants and/or the decision to convert existing plants.**

The following response was provided by Nelson Bacalao, PhD, Senior Manager, Consulting, Siemens PTI Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Nelson Bacalao and Efran Paredes Maisonet certify that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 57 This analysis is outside the scope of the IRP. Siting considerations for the proposed energy infrastructure are evaluated as part of the engineering design phase of each new project. As part of the upgrades needed to PREPA's substations, 19 were identified as needing relocation or reinforcement because these were flooded after hurricane Maria.

Request 57a) As stated above, this analysis is outside the scope of the IRP.

Request 57 b) As stated above, this analysis is outside the scope of the IRP.

Request 58 Provide the PREPA plan to address the Yabucoa plant overloads and information on constraints as a result of two major resources, 302 MW each at Yabucoa and Mayaguez and the reinforcements required in existing system steady state analysis.

The following response was provided by Yan Du Staff Consultant of Siemens PTI. Yan Du certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 58 The detailed analysis is described in Section 3.5 of the IRP Appendix 1-Transmission & Distribution. To reiterate here:

Contingency analysis was conducted for the unreinforced system. This system represents what is currently existing and operating as PREPA's transmission network. The purpose of this study is to mainly identify any constraints and reinforcements required to relieve those constraints as a result of two major resources, not counting on the investments in the MiniGrids. These units are 302 MW each interconnected to Yabucoa and Mayaguez.

Two power flow cases, bench (without the units) and study (with the units), were created to run the contingency analysis. In study case the new units were dispatched to full capacity, and the generation in the rest of PREPA system was adjusted to maintain the same generation level.

The unit in Mayaguez did not result in any constraints. The unit in Caguas (Yabucoa) results in some overloads. These overloads would not exist considering the reinforced case for MiniGrid operations. Also there is a possible plan in place to reroute one of the two lines from AGUIRRE to AGUAS BUENAS and terminate to AES, thus providing another outlet for AES units, and this would also resolve all the overload issues.

Request 59 Indicate and explain the status of all the PREPA fleet electric generation plants as to the requirements of the Clean Water Act.

- a) **Please also provide the status of the AES Guayama plant's compliance with the Clean Water Act requirements.**

misleading information has been provided.

Response: Request 61 The information requested is currently not available. PREPA will provide the information as soon as it becomes available.

Request 62 Explain and provide documentation on the percentage of electric power outages in Puerto Rico that are due to distribution failures.

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 62 The information requested is currently not available. PREPA will provide the information as soon as it becomes available.

Request 63 Why are none of the PREPA units equipped with Continuous Emissions Monitoring Systems (CEMS)?

The following response was provided by Luisette Ríos Castañer, Head Environmental Protection and Quality Assurance Division, PREPA. Luisette Ríos Castañer certifies that, to the best of her information and belief, all answers provided by her herein are true and no false or misleading information has been provided.

Response: Request 63 CEMS are installed only at PREPA units where permits or regulations require it – San Juan and Cambalache units.

Request 64 Is AES equipped with CEMS?

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 64 PREPA understands that AES is equipped with CEMS. Please refer this question to AES for confirmation.

Request 65 Please provide any information currently in PREPA's possession about the projects awaiting interconnection to PREPA's system. This information should include size, type, timing, interconnecting party, status of interconnection, etc.

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 65 The information requested is currently not available. PREPA will provide the information as soon as it becomes available.

Request 66 Please provide the spreadsheet used to develop Table D.1 of Appendix 4

The following response was provided by Marcelo Saenz, Senior Consultant, Siemens PTI. Marcelo Saenz certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Appendix 4 of the IRP has Exhibits, not tables. Please clarify or provide title of the exhibit in reference.

Request 67 Please provide the S4S2B workpaper.

The following response was provided by Marcelo Saenz, Senior Consultant, Siemens PTI. Marcelo Saenz certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 67 There is no such workpaper; however in the filed workpapers please refer to workpaper titled: S4S2B_Metrics_Base Case SII.xlsx

Request 68 Please provide the spreadsheets used to develop the capital cost inputs for all new and converted resources modeled in Aurora with all formulas and links intact.

The following response was provided by Marcelo Saenz, Senior Consultant, Siemens PTI. Marcelo Saenz certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 68: This question is quite wide, however there are filed workpapers that may address these questions; PREPA IRP Solar Wind Storage Costs-Updated CFWind-final.xlsm for renewable and PREPA Fossil New Resources 10-9 2018_v6.2.xlsx

for new thermal.

Request 69 Please explain why the NPVs given in “Summary PREPA IRP Cases-06032019” and throughout the IRP are not consistent with the NPVs calculated in the corresponding workpapers for those runs. For example, the “Summary” spreadsheet shows an NPV with and without Energy Not Served of \$14,698,161 and \$14,431,214, respectively. In comparison, the “ESM_Metrics_Base_SII-mm with action plan tab” shows an NPV of \$15,403,559. (All figures are in 000\$.) If the difference is due to some additional transformation of the system costs please provide that transformation in spreadsheet format with all formulas and links intact.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant. Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response:Request 69 As can be observed by following the calculations, the NPV (both with and without the energy not served) are determined in the tab “Production Costs” Looking at that tab we see the following:

	ESM
NPV fuel	5,875,910
NPV Var O&M	358,888
NPV Fixed Costs	8,196,415.27
Total	14,431,214

And we also have:

NPV @ 9% 2019-2038 \$000	Average 2019-2028 2018\$/MWh	RPS 2038	NPV Deemed Energy Not Served MiniGrid Ops \$000 (1)	NPV + ENS \$000

14,431,214	98.91	66.99%	266,947	14,698,160
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So the value in the summary and the ESM document are consistent with the calculated values in the workpapers.

Request 70 Please list the steps PREPA has taken to reduce nontechnical losses and the estimated improvement in those losses resulting from those steps.

The following response was provided by Efran Paredes Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 70 The information requested is currently not available. PREPA will provide the information as soon as it becomes available.

Request 71 Models like AURORA are often set up to optimize capacity expansion relative to a market price and subject to optimization constraints like a minimum reserve margin. Meaning that all resources that the model is capable of adding are added if they are “profitable” subject to the constraints on the objective function like the reserve margin. Please answer the following:

- a) Did Siemens use AURORA in this manner?
- b) If so, what market price did it use?
- c) If so, provide that market price and any workpapers used in its development with all formulas and links intact.
- d) If not, how would Siemens describe the optimization?

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant, Siemens PTI. Nelson Bacalao certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 71a) The objective that was used is to minimize the present value of the total production costs that includes both amortization of capital costs, fixed and

variable O&M and fuel costs, subject to constraints that may be binding, i.e. driving the results and preventing the further reduction on the objective (e.g. meeting the load and the RPS) or not binding and not affecting the objective's minimization (e.g. reserves).

Request 71 b) Not applicable for the methodology used.

Request 71 c) Not applicable for the methodology used.

Request 71 d) See Response 71 a).

Request 72

Under the ESM, the reserve margin never falls below 53% and is often at least 10 percentage points higher than that. Why did Siemens choose not to retire additional units or exclude the construction of new units so as to make the reserve margin closer to its minimum requirement of 30%?

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant, Siemens PTI. Nelson Bacalao certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 72 As can observed above the optimization was done to minimize the present value of the total costs. Thus, at any point in time the optimization process is assessing the benefits of maintaining unit online (lower variable costs) with the cost of keeping it in service (the fixed costs). If the fixed costs are greater than the benefits the units are retired economically by the model, not by user input. The fact that the reserve was higher than 30% is just indicative that the reserve margin was not a binding constrain.

Request 73 In Section 8.7.3 of the IRP, Siemens describes the planning reserve margin (PRM) sensitivity analysis (lower PRM) it undertook and concludes "The LTCE resulting from this optimization had in fact higher levels of reserves reported compared to previous solutions in which the PRM target was set to 30%. This increase in reserve levels despite using lower PRM target is mainly caused by the optimization algorithm that was able to find a slightly better solution in which the PRM again is not a binding constraint and confirmed that it had minimal impact on the overall results." Please explain why Siemens believe this result would have occurred.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant, Siemens PTI. Nelson Bacalao certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 73 Please see our prior responses on the objectives of optimization and the binding constraints.

Request 74 Please provide a complete list of the retirements that were forced and those that were economically selected and when as discussed during the September 4th and 5th technical hearings.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant, Siemens PTI. Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 74 This varies by scenario, but it is simple to determine by inspection. All units were retired economically by the optimization process, with the only exception of steam units burning heavy fuel oil (MATS incompliant) that must be retired by the end of 2024, so any unit retired at the end of that year (typically Palos Seco 3 or 4) is by input.

Request 75 Please confirm that RSA costs are not included in any of the workpapers provided for this IRP.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant, Siemens PTI. Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 75 The RSA was not part of the considerations of the IRP.

Request 76 Was AES involved in any way or manner in the preparation of the AES Coal Plant Conversion Assessment?

- a) **Did PREPA communicate with any AES representative to prepare the Assessment? If so, provide the name and position of each AES representative.**

b) Please provide a detailed description of the discussions between PREPA and AES.

c) Please provide all correspondence and information exchanged between PREPA and AES.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consultant, Siemens PTI. Nelson Bacalao certifies that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 76 a) AES was not involved in the preparation of the study. We requested information on any prior studies that AES could have, but none was provided.

Request 76 b) See above.

Request 76 c) See above.

Request 77

Please refer to Law 17-2019, Section 3(H): “Every integrated resource plan shall include ... PREPA and electric service companies’ environmental assessments related to air emissions and water consumption, solid waste, and other factors such as climate change.”

a) Is AES and electric service company as defined in this law?

The following response was provided by Efran Parede Maisonet, Director of Planning and Environmental Protection, PREPA. Efran Paredes Maisonet certifies that, to the best of his information and belief, all answers provided by him herein are true and no false or misleading information has been provided.

Response: Request 77 a) Please refer to the definition of electric service company established in Act 17-2019, Article 1.2 (c).

Request 78 Does AES Coal Plant Conversion Assessment take into account the cost of the proper disposal of coal ash from the AES Guayama plant? If so, please provide all supporting analysis and documentation. If not, explain why not.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consulting and Jack Henry, PE, Senior Staff Consultant, Siemens PTI. Nelson Bacalao

and Jack Henry certify that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 78 No. This analysis was beyond the scope of the study.

Request 79 Admit that the early retirement of the AES Guayama coal plant would reduce the volume of coal ash to be ultimately disposed of, compared to retirement in 2027.If anything but an unqualified admission, please provide a detailed explanation.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consulting and Jack Henry, PE, Senior Staff Consultant, Siemens PTI. Nelson Bacalao and Jack Henry certify that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 79 The early retirement of the AES Guayama coal plant would reduce the volume of coal ash to be disposed of as compared to retirement in 2027.

Request 80 Does the Assessment take into account the cost of cleaning the site? If so, please provide all supporting analysis and documentation. If not, explain why not.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consulting and Jack Henry, PE, Senior Staff Consultant, Siemens PTI. Nelson Bacalao and Jack Henry certify that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

Response: Request 80 No. This analysis was beyond the scope of the study.

Request 81 Does the Assessment consider the cost of restoration of the ecosystems affected by AES operation? If so, explain how. Provide documentation. If so, please provide all supporting analysis and documentation. If not, explain why not.

The following response was provided by Nelson Bacalao, PhD, Senior Manager Consulting and Jack Henry, PE, Senior Staff Consultant, Siemens PTI. Nelson Bacalao and Jack Henry certify that, to the best of their information and belief, all answers provided by them herein are true and no false or misleading information has been provided.

**Sotomayor Ramfrez, D.; Impacto de la construcción y operación del proyecto Montalva Solar Farm
Narrativa del informe**

**Informe sobre el impacto de la construcción y operación del proyecto Montalva Solar Farm
en la zona de la Reserva Agrícola del Valle de Lajas**

Sometido por petición a

Lie. Laura Arroyo

Staff Attorney, Earthjustice

14 octubre 2020

Por

David Sotomayor Ramfrez, Ph.D.; CPSSc; Catedrático en Suelos, Colegio de Ciencias Agrícolas
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in Memoriam

Este trabajo está dedicado a la memoria del amigo y colega, Agrónomo Honorario Luis Canty
Perez, quien en vida luchó incansablemente por la preservación y el desarrollo agrícola
sustentable del Valle de Lajas.

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23 Resumen ejecutivo

A petición de la organización *EarthJustice*, proveo mi opinión profesional sobre el *Borrador de Declaración de Impacto Ambiental Montalva Solar Farm, Guánica-Lajas* (B-DIA) para la construcción y operación de una facilidad de producción de energía fotovoltaica en los municipios de Guánica y Lajas. En este documento (i) se resumen los antecedentes y situación actual de la energía fotovoltaica en Puerto Rico, (ii) se resume el plan de acción propuesto en el B-DIA, y (iii) se hace un análisis del proyecto desde la perspectiva agrícola-ambiental.

La Autoridad de Energía Eléctrica (AEE) tiene como meta generar la totalidad de la demanda de energía con fuentes renovables para el año 2050. Con tal fin, la AEE se ha embarcado en acuerdos de compra y operación basado en megaproyectos que impactarán terrenos de alto valor agrícola y de alto valor ecológico. Montalva Solar Farm, Guánica-Lajas es uno de esos proyectos.

El proyecto pretende construirse en un conglomerado de parcelas de 2,843 cuerdas actualmente en uso agrícola y descanso (conservación de recursos). La tenencia de tierra es

privada. El uso de terreno actual es agrícola y conservación y la cubierta de tierra es de forraje para corte de heno, ganadería de carne y conservación de recursos. El 50% de los suelos en el área están clasificados como *Prime Farmland if Irrigated*, *Soils of Statewide Importance* y *Prime Farmland if Irrigated and Reclaimed* por USDA. Esta clasificación establece entre otros atributos, que los suelos tienen la mejor combinación de propiedades físicas y químicas para producir comida, alimento, forraje, fibra y otros cultivos de importancia económica. Cerca del 30% de los suelos tiene acceso al sistema de riego y están dotado de drenajes para facilitar la producción agrícola como parte del Proyecto del Suroeste, creado en la década del 1950. El riego y drenaje puede ser expandido a otras partes del área propuesta para la construcción. El 53% de los suelos (algunas series San Germán, Pozo Blanco, Aguilita, Aguirre, Fé, Gúánica, Fraternidad y Altamira) son considerados de alta fertilidad y con el manejo adecuado del riego y drenaje pueden ser altamente productivos. El convertir el área, de uno agrícola a uno industrial de producción de energía contribuiría a la ya existente alta tasa de pérdida de terrenos agrícolas y baja proporción de terrenos agrícolas en Puerto Rico. La construcción del proyecto establecería un precedente para que otros terrenos en reserva agrícola u otras áreas con terrenos de alto valor agrícola se utilicen para la construcción de fincas de energía solar fotovoltaica. Todo esto contribuiría a aumentar la dependencia de bienes agrícolas de importaciones de EE. UU y otros países con posiblemente menores restricciones ambientales y fitosanitarias que en Puerto Rico.

El proponente pretende combinar la generación de energía solar con la crianza de ovinos. No se provee un estudio de viabilidad económica, seguridad e integridad de animales, capacidad administrativa de manejo de ese tipo de proyecto por el proponente, especialmente considerando que el mismo se realizará entremezclado y con la presencia de módulos fotovoltaicos, transformadores, y baterías en la zona. Se ha documentado el uso de ovinos en fincas fotovoltaicas para el pastoreo del forraje entre los módulos. Pero, estos no necesariamente tienen un fin comercial para la venta de la carne y subproductos si no para talar las áreas verdes. Para sostener una producción de ovinos, eficiente y rentable, el agroecosistema tiene que ser manejado intensivamente con forraje mejorado, riego, fertilización y otros insumos, y consideraciones de manejo del animal y estudios del mercado.

Como alternativa, se recomienda que se establezca la empresa de producción de ovinos en 1,593 cuerdas del área propuesta siguiendo las recomendaciones del Servicio de Extensión Agrícola de la Universidad de Puerto Rico, Recinto Universitario de Mayagüez. Como alternativa, también, hay cultivos alternos de mayor rentabilidad económica que la producción de forraje y ganadería de carne, que se podrían establecer en la zona. Se recomienda, además, que se establezcan los paneles fotovoltaicos en los techos de estructuras residenciales e industriales en los municipios del suroeste, como, por ejemplo, Guánica, San Germán, Cabo Rojo, Lajas y Yauco, siguiendo las recomendaciones de organizaciones como Queremos Sol Puerto Rico y peritos de la Universidad de Puerto Rico, Recinto Universitario de Mayagüez. La propuesta para la generación de energía en techos está basada en estudios científicos probados y aparenta representar la mejora alternativa de uso de tierra y costo, como alternativa energética para Puerto Rico. De esta manera se estará generando la cantidad de energía

propuesta para cumplir con la Política Pública Energética de Puerto Rico y preservando los terrenos agrícolas para garantizar parte de la seguridad alimentaria para esta y futuras generaciones del país.

Basado en un análisis objetivo y científico del proyecto, se rechaza la construcción y operación del proyecto para generar energía solar con módulos fotovoltaicos en terrenos agrícolas de alto valor, dentro y en áreas adyacentes a la Reserva Agrícola del Valle de Lajas.

La Oficina de Gerencia de Permisos (OGPe) en calidad de proponente, ha presentado el Borrador de Declaración de Impacto Ambiental Montalva Solar Farm, Guánica-Lajas (B-DIA)¹⁰⁹. El mismo fue preparado por Daniel J. Galán Kercadó Gerente Ambiental de Quantum Consulting, LLC a favor de PBJL Energy Corporation para la construcción y operación de una facilidad de producción de energía fotovoltaica con una capacidad de hasta 165 MW AC en los municipios de Guánica y Lajas. En este documento (i) se resumen los antecedentes y situación actual de la energía fotovoltaica en Puerto Rico, (ii) se resume el plan de acción propuesto en el B-DIA, y (iii) se hace un análisis del proyecto desde la perspectiva agrícola-ambiental.

I. Antecedentes y situación actual de la energía fotovoltaica en Puerto Rico

- Entre 2008 y 2012 la Autoridad de Energía Eléctrica (AEE) firmó 68 acuerdos de compra y operación (*PPOA por sus siglas en inglés*). Entre el 2012 y el presente muchos de los acuerdos se re-negociaron.
- Los proyectos aparentemente se originaron durante la administración gubernamental de 2009 al 2013 y son producto de un proceso expedito (“fast-track”) que no contó ni con participación ciudadana ni con una evaluación rigurosa de los impactos directos y a largo plazo para el desarrollo sostenible del país.
- El 19 de junio de 2020, la AEE sometió al Negociado de Energía de Puerto Rico (NEPR) una solicitud de enmiendas a los contratos de compraventa de energía renovable en 16 proyectos no-operacionales para una capacidad proyectada de 579 MW. Entre esos acuerdos estaba el propuesto en este B-DIA, *Montalva Solar Farm Lajas-Guánica*.
- Bajo la ley de Política Pública Energética de Puerto Rico (LPRP 17 del 11 abril de 2019)¹¹⁰, AEE tiene el mandato de obtener el 40% de su electricidad de recursos no renovables para el 2025, 60% para el 2040, y 100% para el 2050.¹¹¹¹¹²
- Para el año fiscal 2019, la energía fotovoltaica a escala comercial se generaba en 7 proyectos en operación o pre-operación para un total de 147 MW.¹¹³, o cerca del 3.9% de la capacidad de consumo de la isla. Actualmente, el proyecto más grande de energía

¹⁰⁹ Galán Kercadó, D. J. 2020. Borrador de Declaración de Impacto Ambiental. Número de caso en OGPe 2020314865-REA-004636

¹¹⁰ <http://www.agencias.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/17-2019.pdf>.

¹¹¹ Autoridad de Energía Eléctrica, SB 1121 Puerto Rico Energy Public Policy Act, p. 23.. Disponible en - <https://aeepr.com/es-pr/QuienesSomos/Ley17/A-17->

¹¹² [%20PS%201121%20Politica%20Publica%20Energetica.pdf](https://aeepr.com/es-pr/QuienesSomos/Ley17/A-17-%20PS%201121%20Politica%20Publica%20Energetica.pdf).

¹¹³ Puerto Rico Electric Power Authority Integrated Resource Plan, Appendix 3 – Renewable energy project status.

Disponible en

<https://aeepr.com/espr/QuienesSomos/Ley57/Plan%20Integrado%20de%20Recursos/PREPA%20Ex.%201.03%20IRP%202019%20Appen%20dix%203%20-%20Renewable%20Energy%20Project%20Status.pdf>.

fotovoltaica a grande escala en operación es Oriana Energy, LLC (Yarotek, LLC) en Isabela generando 45 MW AC.¹¹⁴ De aprobarse el Montalva Solar Farm, más que se duplicará la cantidad de energía solar que se produce actualmente.

- La AEE pretende añadir hasta 1,800 MW y 920 MW en almacenaje en baterías para el 2025.^{115,116}

II. Resumen de los planteamientos más relevantes del B-DIA según propuesto

1. Aspectos generales

- a. El proyecto pretende generar 20 empleos directos o indirectos durante la operación que se espera dure 30 años. Al finalizar el proyecto, se propone dismantelar el mismo siguiendo la reglamentación vigente. (B-DIA, p. 3).
- b. El proyecto tiene una inversión de \$250,000,000 que incluye los estudios, la compra e instalación de los módulos fotovoltaicos, las medidas de control y protección de los recursos naturales existentes y la construcción de facilidades accesorias (B-DIA, p. 11).
- c. El proyecto pretende generar 165 MW AC, o el 4.46% del consumo pico energético de la isla. Actualmente, el PPOA es por 80 MW entre *PBJ Energy Corporation* y PREPA por un plazo de 25 años.
- d. El proyecto propuesto está localizado cerca de la carretera 116, barrios Costa y Montalva en los municipios de Lajas y Guánica.
- e. La energía generada en el proyecto se interconectará a la red de PREPA mediante una modificación de una línea aérea existente a través de varias fincas de la Reserva Agrícola del Valle hacia el norte conectando con San Germán a una distancia de 7.38 km.
- f. El Proyecto propuesto está ubicado en 12 parcelas privadas. El dueño de las parcelas es José A. Acosta.
- g. El proyecto propuesto tiene una cabida total de 1,799 cuerdas, de las cuales 1,267 cuerdas serán transformadas de su uso actual, el cual es agrícola, y cubiertos por

¹¹⁴ U.S. Energy Information Administration (EIA). Puerto Rico Territory Energy Profile.
<https://www.eia.gov/state/print.php?sid=RQ#105>

¹¹⁵ Puerto Rico Energy Bureau, PREPA Resource Planning - An Action Plan for a Greener, More Resilient Puerto Rico (August 2019), p.22.

¹¹⁶ U.S. Energy Information Administration (EIA). Puerto Rico Territory Energy Profile.
<https://www.eia.gov/state/print.php?sid=RQ#105>

165 módulos fotovoltaicos, transformadores, baterías de almacenamiento, estructuras accesorias, caminos y subestaciones.

- h. El proyecto pretende ocupar las áreas de las fincas con elevaciones de 4 metros sobre el nivel del mar (msnm) hasta 50 msnm. Los terrenos en elevaciones mayores a 50 msnm no serán utilizados y se mantendrán es su estado actual. (B-DIA, p. 23).

2. Sobre la conversión de uso tierra de uno agrícola a uno de energía renovable.

- a. Se propone fomentar el uso agrícola en áreas que no estén impactadas por los módulos fotovoltaicos, caminos y estructuras asociadas. Esta área se estima en 532 cuerdas. El proyecto alega que el mismo protegerá el área contra la expansión urbana (urbanizaciones, industrias, carreteras, etc.) (B-DIA, p. 7) “la cual una vez invade estas zonas las altera sin posibilidad de que se generen beneficios agrícolas”. El proyecto alega que el mismo no limitará el área para uso agrícola (B-DIA, p. 7).
- b. El proponente alega que las actividades agrícolas (sic. actuales) están limitadas a pastos y crianza de ganado, pero el drenaje es necesario debido a que la humedad del suelo limita el uso de maquinaria agrícola. Pequeñas áreas presentan suelos adecuados para el cultivo, pero la influencia de áreas de humedales adyacentes o la poca profundidad y suelos rocosos limitan el desarrollo de éstos.” (B-DIA, p. 24)
- c. El área de estudio es considerada en su mayoría como fincas de forraje para corte de heno o pastoreo para la ganadería de carne. En algunas parcelas el forraje el heno está entremezclado con árboles maduros Úcares (*Bucida buceras*), Bayahonda (*Prosopis juliflor*), Acacia (*Albizia lebbbeck*), Guamá Americano (*Pithecellobium dulce*), Tamarindo (*Tamarindus indicus*), Guayacán (*Guaiacum officinalis*), y la Zarcilla (*Leucaena leucocephala*) (B-DIA, p. 15-16)
- d. El proponente alega que, en el pasado, los terrenos propuestos para el proyecto fueron utilizados extensamente con propósito agrícola, principalmente el pastoreo de ganado. Actualmente continúa utilizándose con este propósito, pero a una escala mucho menor (B-DIA, p.42). La industrialización, y otros factores socioeconómicos y políticos causaron el abandono de la agricultura en gran parte del área. Varios de los problemas que afectaron la producción agrícola local incluyeron la competencia con productos extranjeros, importación descontrolada de productos que podían ser producidos localmente y el uso de terrenos altamente productivos para desarrollos urbanos (B-DIA, p. 42).
- e. El proponente alega que “El Proyecto según diseñado es totalmente compatible con las actividades agrícolas existentes y propuestas. Inclusive, facilita el acceso a la finca para dichas actividades.” (B-DIA, p. 122; p. 123). “En términos de bienestar social, el Proyecto promueve el empleo local para labores de construcción y mantenimiento y no afecta o limita temporera o permanentemente las oportunidades de trabajo existentes o proyectadas en el área agrícola. Por el contrario, al mejorar la seguridad del predio, el Proyecto previene actividades delictivas en el área y evita los

vertederos clandestinos. También, al viabilizar el uso agrícola del predio, el Proyecto induce la creación de empleos agrícolas del área.” (B-DIA, p. 123)

3. Sobre los recursos de suelos en el área propuesta

- a. El proponente estipula que “...Muchos de los suelos son buenos para cultivar. Suelos en los llanos inundables se encuentran a lo largo de los ríos y arroyos en las llanuras costeras y en valles tierra adentro. Estos suelos generalmente tienen un buen potencial para la agricultura”. (B-DIA, p. 24)
- b. El proponente menciona que el área que ocuparía el proyecto tiene aproximadamente 54 tipos de suelo. Las series de suelos más comunes son Altamira gravelly clay (AtD) y Fraternidad clay (FrA). Estos suelos están clasificados como suelos no-hydricos, el Altamira gravelly clay no está considerado como “prime farmland” y el Fraternidad clay se considera como “prime farmland: si es irrigado. (B-DIA, p. 24, p. 27-31).
- c. El proponente reconoce que cualquier impacto sobre los terrenos que sean clasificadas como *Prime Farmland* tienen que cumplir con *Farmland Protection Policy Act (FPPA) 7.U.S.4201*. (B-DIA, p. 27). La agencia que autorizaría la conversión de uso a uno no-agrícola es USDA-NRCS.

4. Sobre el impacto del proyecto sobre los recursos naturales

- a. El proponente reconoce que área es considerada por el Servicio de Pesca y Vida Silvestre de los E.U. (USFWS por sus siglas en inglés), como un Hábitat Crítico para la Mariquita de Puerto Rico, ave endémica y clasificada como en peligro de extinción. Se realizó un censo de aves donde se observaron 14 especies, pero, no se observó Mariquitas (B-DIA, p. 13, p. 17). El DRNA determinó en 2010¹¹⁷ que el área del proyecto se encuentra fuera del hábitat crítico. (B-DIA, p. 21).
- b. Los siguientes sistemas naturales se encuentran dentro del proyecto (acuífero, hábitat crítico, humedales, lago artificial, Reserva Agrícola) y los siguientes se encuentran cerca desde el perímetro del predio (área costanera, arrecifes, bahías, bosque, canal, pozo, refugio de aves, reserva natural). Según el B-DIA, ninguno de los sistemas naturales se afectará significativamente. (B-DIA, p. 33-34; p. 34-40; p. 83-84)

5. Sobre la ordenación legal de uso de terrenos y su relación con el proyecto

¹¹⁷ Borrador de Designación del Hábitat Natural Crítico y Hábitat Natural Crítico Esencial para la Mariquita de Puerto Rico (según mencionado en el B-DIA, p. 21).

- a. El proponente alega que, conforme al Reglamento Conjunto para la Evaluación y Expedición de Permisos Relacionados al Desarrollo, Uso de Terrenos y Operación de Negocios (RC 2019) con vigencia del 7 de junio de 2019, la instalación de solares fotovoltaicas es cónsona con los objetivos del distrito de calificación A-G, "...pues al momento presente, el predio está prácticamente en desuso agrícola y económico, por lo que ninguna actividad agrícola o económica será desplazada como parte de la acción. Tampoco se contemplan impactos ambientales significativos en el predio bajo estudio ni impactos ambientales que trasciendan los límites del Proyecto."
"...se pretende que el proyecto sea evaluado por la Junta Adjudicativa en el proceso de Consulta de Ubicación y por la OGPe para la otorgación de los permisos correspondientes." (B-DIA, p. 44).
- b. El proponente alega que los terrenos fueron utilizados extensamente con propósito agrícola, que continúa usándose, pero a una escala menor. Se propone armonizar la creación de energía renovable con el potencial de uso agrícola que tiene la finca, recuperando el potencial agrícola y económico del área. La propuesta es realizar una "crianza de ganado ovino en producción ecológica. Los ovinos pastorean en los terrenos del proyecto para mantener la vegetación en niveles razonables a la vez que se benefician de tener áreas adicionales de pastoreo sin costo." (B-DIA, p. 45; p. 71)
- c. El proponente utiliza como guía el mapa de calificación del plan territorial del Municipio de Lajas adoptado por la Junta de Planificación el 28 de junio de 2017. En dicho mapa los terrenos en la extensión municipal de Lajas al Sur de la carretera estatal #116 están clasificados como Agrícola de alta intensidad (A.a) y Conservación general (O.g). Los terrenos al Norte de la carretera estatal#116 están clasificados como Agrícola en Reserva Uno (AR-1), según el Mapa de Delimitación y Zonificación Especial para la Reserva Agrícola del Valle de Lajas adoptado por la Junta de Planificación el 19 de junio de 2014. Según el plan de uso de terrenos la zonificación de estos terrenos es suelo rústico especialmente protegido agrícola (SREP-A). (B-DIA, p. 46).
- d. El proponente reconoce que parte del proyecto está ubicado en zona inundable (BDIA, p. 52).
- e. El proponente utiliza como base legal el Reglamento Conjunto 2019. La Tabla 6.54 del RC (2019) (p. 348-349) estipula los usos permitidos en Distrito R-G, entre ellos, proyectos de energía renovable. Según el proponente, el uso propuesto es permitido en distrito R-G. (B-DIA, p. 87). Hay 554 cuerdas del proyecto clasificado en Distrito de Calificación R-G (zona de Guánica).
- f. La Tabla 6.57 del RC (2019) (p. 358) estipula los usos permitidos en Distrito A-P, entre ellos, proyectos de energía renovable. Según el proponente, el uso propuesto es permitido en distrito A-P. (B-DIA, p. 89). Hay 639 cuerdas del proyecto clasificado en Distrito de Calificación A-P (zona de Lajas).

- g. El RC (2019) no autoriza proyectos de energía renovable en Distrito Conservación de Recursos (RC). Hay 80.5 cuerdas calificadas en RC. El B-DIA pretende proponer el mecanismo de consulta de ubicación para el proyecto.
- h. El proyecto tiene 325 cuerdas en Reserva Agrícola (B-DIA, p. 94). El proponente alega que...” Si bien es cierto que estas tres fincas están afectadas por la condición de pertenecer a la Reserva Agrícola de Lajas, también es cierto que en el distrito Agrícola Productivo se permiten los Proyectos de Energía Renovable.” RC (2019, p. 341.
- i. El proponente presenta varias alternativas de desarrollo: (I) No acción; (II) Alternativa de Desarrollo de Un Proyecto Agrícola; (III) Alternativa de Construir un Desarrollo Residencial; (IV) Alternativa de Construir el Proyecto Propuesto, siendo la IV la mejor opción (B-DIA, p. 99-108). El proponente alega que “Esta (sic. IV) alternativa representa una doble solución económica y social que aportaría al cumplimiento de la Política Pública de Diversidad Energética y al desarrollo para fines agrícolas, de agroturismo y para consumo del producto local.”

III. Comentarios y análisis relacionados a la acción propuesta

Se evaluó el *Borrador de Declaración de Impacto Ambiental Montalva Solar Farm Guánica-Lajas* (B-DIA), presentado por Daniel Galán Kercadó en representación de *Quantum Consulting LLC*. Se revisaron imágenes visuales de *GoogleEarth* y espectrales de *Sentinel2A* para hacer observaciones de carácter ambiental. También, se hicieron algunas observaciones de carácter agronómico-ambiental mediante los catastros de la Junta de Planificación (JP), recursos de suelo que incluye series y características morfológicas del perfil de las series, (NRCS), clasificación según la Junta de Planificación (2015), calificación según JP (2019), elevación LIDAR y pendiente (USGS,2015-2017), áreas prioritarias de conservación (DRNA, 2008) e hidrografía (CRIM, 2001). La evaluación contenida en esta sección está basada en el mejor juicio profesional y académico del autor principal y de los colaboradores contribuyentes.

Es menester de este servidor como catedrático en la Universidad de Puerto Rico, Recinto Universitario de Mayagüez, Colegio de Ciencias Agrícolas de la (CCA) emitir comentarios sobre este documento. Basado en el análisis realizado se plantea la hipótesis que este proyecto impactará negativamente la producción agrícola local y nacional afectando la integridad de los terrenos agrícolas y la preservación de las reservas agrícolas.

1. Aspectos generales

a. Tenencia de tierra en el área propuesta

B-DIA: *El Proyecto propuesto está ubicado en 12 parcelas privadas. El dueño de las parcelas es José A. Acosta.*

El B-DIA incorrectamente señala a un solo propietario del área. Nuestro análisis demuestra que el proyecto está ubicado en 15 parcelas privadas repartidas en 17 planos con múltiples propietarios (Figura 1; Cuadro 1) (CRIM, 2020). No sabemos si hubo algún cambio en los últimos meses que no haya sido actualizado en la base de datos del CRIM.

b. Cabida del proyecto

B-DIA. El proyecto tiene una cabida total de 1,799 cuerdas, de las cuales 1,267 cuerdas serán transformadas de su uso actual, el cual es agrícola, y cubiertos por 165 módulos fotovoltaicos, transformadores, baterías de almacenamiento, estructuras accesorias, caminos y subestaciones.

El B-DIA incorrectamente señala un área menor a la que realmente se impactará. Nuestro análisis, basado en las coberturas de la limitación de los predios por el CRIM, demuestra que las 17 parcelas ocupan un área total de 1,120 ha o 2,844 cuerdas (Figura 1). Nos preocupa la magnitud del área propuesta y la real que ocupa el proyecto, porque elimina un área significativa de terrenos en uso actual agrícola. Nos preocupa, además, el intento del proponente de minimizar la cabida del proyecto (2,844 cuerdas calculada por nosotros) de lo que realmente ocuparía (1,706 cuerdas reportadas por el proponente). Aparentemente, el proponente calcula el área del proyecto basado en el área en terrenos entre 5 y 59 m sobre el nivel del mar (msnm) y no en el tamaño total de los planos.

c. Ubicación del proyecto según la elevación

B-DIA. El proyecto ocupará las áreas de las fincas con elevaciones de 4 metros sobre el nivel del mar (msnm) hasta 50 (msnm). Los terrenos en elevaciones mayores a 50 M no serán utilizados y se mantendrán es su estado actual.

Se realizó un análisis del área que ocuparía el proyecto, basado en la huella descrita en B-DIA. Nuestro análisis demuestra que se propone ubicar las placas fotovoltaicas en áreas menores a 4 m y mayores de 50 msnm (Figura 2). El 26% del área total de 2,844 cuerdas estaría en una altura sobre el nivel del mar de entre 0 y 4 m msnm y 14% estaría en alturas mayores de 50 msnm (Figura 3). El área total que ocuparían las áreas inhabilitadas es un 40% del área o 1,138 cuerdas.

d. Evidencia de tala y remoción de material vegetativo en la zona

En las parcelas 2, 17 y parte de la 4 (Ver Figura 1 para ubicar la zona), se ha talado un área de aproximadamente 30 ha (76 cuerdas) de bosque secundario. Esto se demuestra al realizar una apreciación visual histórica del área, en las imágenes satelitales de *Google Earth* y *Sentinel 2A* (Figura 4A y 4B). La tala-remoción ocurrió entre mayo y agosto de 2020. Se desconoce la razón por la cual esto se ha realizado. La eliminación de la vegetación arbórea

podría impactar negativamente zonas aledañas a la zona de interés ya que los árboles estaban ubicados en parte de una zona de amortiguamiento y drenaje por donde discurren parte de las aguas de escorrentía de la zona de interés. Los árboles parecen haber sido muy frondosos con un extenso dosel, lo que evidencia el potencial de productividad que tienen los suelos a pesar de tener un mínimo manejo (o ninguno) de fertilización e irrigación.

La remoción de material vegetativo de la zona fue confirmada mediante un análisis de la imagen Sentinel 2A de NDVI (*Normalized Difference Vegetation Index*) para agosto 2020 (Figura 4B). La imagen demuestra las áreas pardas asociadas con menor vegetación. La zona donde se ha removido la vegetación contrasta con el resto de la zona que todavía mantiene una cubierta vegetal.

2. Sobre la conversión de uso tierra de uno agrícola a uno de energía renovable.

a. Fomentar el uso agrícola

B-DIA. Se propone fomentar el uso agrícola en áreas que no estén impactadas por los módulos fotovoltaicos, caminos y estructuras asociadas. La construcción y operación del proyecto “protegerá el área contra la expansión urbana (urbanizaciones, industrias, carreteras, etc.)...”; “la cual una vez invade estas zonas las altera sin posibilidad de que se generen beneficios agrícolas”. El proyecto alega que el mismo no limitará el área para uso agrícola

Al evaluar esta aseveración hay que preguntarse, ¿por qué el proyecto protegerá el área contra la expansión urbana? Se puede interpretar que la presencia de placas fotovoltaicas es tan nocivo o desagradable que evitaría que comunidades se asienten en áreas circundantes. En el B-DIA no se hace mención de la presencia de la comunidad Cuesta Blanca, quien se encuentra entre partes del proyecto, y como esta comunidad potencialmente se puede afectar.

B-DIA. Las actividades agrícolas (sic. actuales) están limitadas a pastos y crianza de ganado, pero el drenaje es necesario debido a que la humedad del suelo limita el uso de maquinaria agrícola. Pequeñas áreas presentan suelos adecuados para el cultivo, pero la influencia de áreas de humedales adyacentes o la poca profundidad y suelos rocosos limitan el desarrollo de éstos”.

El B-DIA reconoce que el proyecto ocuparía e impactaría un humedal. Nuestras observaciones en la zona lo corroboran y el análisis de foto aérea demuestra que 97.8 ha (248.9 cuerdas) de humedal estarían impactadas negativamente por el proyecto.

b. Aspectos económicos de la producción agrícola

B-DIA. “...En el pasado, los terrenos propuestos para el proyecto fueron utilizados

extensamente con propósito agrícola, principalmente el pastoreo de ganado. Actualmente continúa utilizándose con este propósito, pero a una escala mucho menor". "La industrialización, y otros factores socioeconómicos y políticos causaron el abandono de la agricultura en gran parte del área. Varios de los problemas que afectaron la producción agrícola local incluyeron la competencia con productos extranjeros, importación descontrolada de productos que podían ser producidos localmente y el uso de terrenos altamente productivos para desarrollos urbanos".

Nuestro análisis demuestra que el 34% del área está en producción de forraje para heno, 40% está en pastoreo y 26% está en conservación de recursos (Figura 5), para un área efectiva en producción agrícola de 1,593 cuerdas. Se han hecho algunos estudios agrícolaeconómicos en la zona. Sotomayor y Pérez Alegría (2011)¹¹⁸ realizaron un estudio de las actividades y el potencial agrícola en las zonas al este del Valle de Lajas y El Anegado (cerca de 18,000 cuerdas). Comas Pagán (2016)¹¹⁹ realizó varias proyecciones económicas para el desarrollo del Valle de Lajas. Conty (2018) proveyó datos empíricos sobre el valor de la producción agrícola de Guánica y el Valle de Lajas. Para el 2018, la aportación económica (\$/cuerda) fue de \$478, \$480, y \$8,213 para heno, ganado de carne, y cultivos hortícolas, respectivamente (Conty, 2018). Comas (2016) realizó estimados basado en la implementación de tecnología y fertilización, aumentando la proyección a \$1,657/cuerda para la producción de heno, \$946/ccuerda para la producción de ganado de carne y \$19,200/cuerda para cultivos hortícolas (promedio de varios cultivos). El área en conservación de recursos no se considera debido a que posiblemente son suelos poco profundos, los suelos tienen exceso de sales para crear alguna limitación para la producción agrícola o existe la presencia de humedales, y el área efectiva agrícola se realiza en 1,820 cuerdas. Nuestro análisis demuestra que el valor agrícola anual en heno y ganadería en la zona es de \$872,574 y basado en las proyecciones de Comas Pagán (2016) podría alcanzar \$2,207,575 (Cuadro 2). Nuestro estimado es que actualmente hay 289 ha (734 cuerdas) con acceso directo al sistema de riego del Valle de Lajas. Si se convirtieran las 734 cuerdas en forraje y ganado que actualmente tienen riego, a la producción hortícola (productos de aproximadamente 120 días) restando esa área del área en ganadería y forraje el estimado, las proyecciones podrían alcanzar a entre \$6,549,634 y \$15,344,546 (Cuadro 2). El Plan de Desarrollo Reserva Agrícola Valle de Lajas de Comas (2016) demuestra proyecciones económicas para la Reserva Agrícola del Valle de Lajas basado en escenarios reales y proyecciones científicas para distintas empresas agrícolas tales como frutales, granos, forraje, hortalizas, farináceos, caña de azúcar, acuicultura, leche y novillas de reemplazo para vaquerías,

¹¹⁸ Sotomayor-Ramírez, D. and L. Pérez-Alegría. 2011. An assessment of agricultural activities in the eastern portion of the Lajas Valley Agricultural Reserve, within Lajas and Guánica municipalities. Universidad de Puerto Rico, Mayagüez, Estación Experimental Agrícola, Manuscrito sin publicar. 16 pp, con apéndices. Disponible en: http://academic.uprm.edu/dsotomayor/Reprints_SummaryReports.htm.

¹¹⁹ Comas Pagán. 2016. Plan de Reserva Agrícola Valle de Lajas 2016. Estado Libre Asociado de Puerto Rico, Departamento de Agricultura. 65 p. con anejos

ganado bovino, pequeños rumiantes, y otras empresas agrícolas. Dicho documento es actualmente la política pública del Departamento de Agricultura y la Oficina para el Desarrollo del Valle de Lajas. El alcance total de las proyecciones estimadas se resume según

Renglón

Ingreso bruto agrícola	\$94.65 M
Empleos directos actuales	640
Empleos indirectos actuales	1,600
Incremento en empleos directos futuros	473

Incremento en empleos indirectos futuros 1,183 y demuestra el potencial agrícola de todo el Valle de Lajas (Comas Pagán, 2016) basado en un análisis científico económico confiable.

c. Proyecto de crianza de ovinos como alternativa

B-DIA. El proponente propone un proyecto de crianza de ovinos como una alternativa agrícola para la zona.

El uso agrícola propuesto es la producción de ovinos. No se provee un estudio de viabilidad económica, seguridad e integridad de animales, capacidad administrativa de manejo de ese tipo de proyecto por el proponente, especialmente considerando que el mismo se realizará entremezclado y con la presencia de módulos fotovoltaicos, transformadores, y baterías en la zona. Se ha documentado el uso de ovinos en fincas fotovoltaicas para pastoreo del forraje entre los módulos. Pero, estos no necesariamente tienen un fin comercial para la venta de la carne y subproductos si no para la tala de áreas verdes. Para sostener una producción de ovinos, eficiente y rentable, el agro-ecosistema tiene que ser manejado intensivamente con forraje mejorado, riego, fertilización y otros insumos, y consideraciones de manejo del animal y estudios del mercado.

La implementación de un proyecto de crianza de ovinos va mucho más allá que simplemente poner dichos animales en los predios con módulos fotovoltaicos. Al no presentar un estudio de viabilidad económica se entiende que el uso, que se le darán a los ovinos, será netamente para mantener los predios libres de malezas y no necesariamente para una producción de carne de cordero (entiéndase ovinos de 12 meses de edad o menos), la cual sería la que tendría viabilidad económica agropecuaria. Un ovino que se alimente de forrajes naturales de la zona no podrá llegar a un peso de sacrificio considerable o económicamente viable en el tiempo que se recomienda para obtener una calidad de carne aceptable. Para la crianza de ovinos para carne se hace necesario un manejo de forrajes mejorados los cuales no serían cien por ciento viables en áreas donde los módulos le proveen sombra a los forrajes ya que el crecimiento y calidad disminuye, además, el manejo de forrajes especializados requieren sistemas de riego, fertilización y talas periódicas para su manejo lo cual se dificultarían por la presencia de los módulos. Además, no se proveen datos de cuál será el manejo que se le darán a dichos ovinos en cuanto a resguardo y protección ya que son animales muy susceptibles al ataque por perros y a ser robados.

Los comentarios en la B-DIA que, *“Bajo este modelo ganaderos ovinos locales pastorean en los terrenos del proyecto para mantener la vegetación en niveles razonables a la vez que se benefician de tener áreas adicionales de pastoreo sin costo”*, reafirma que el interés del proyecto es mantener las áreas limpias de malezas que afecten las placas fotovoltaicas mas no un interés genuino por una producción agropecuaria. Y, aunque sea un pastoreo libre de costo para los ganaderos, no va a ser costo efectivo ya que se tienen que movilizar los animales dos veces al día (en la mañana a los predios de las placas y en la tarde de regreso a sus fincas donde tiene los ranchos para el resguardo de los animales) y, peor aún, que esa movilización sea para alimentar a sus ovejas con forrajes nativos y no forrajes mejorados.

La producción de carne de cabra y ovejas en Puerto Rico ha tendido a ser una de carácter doméstico/artesanal. Las personas que producen estos animales lo hacen sin fines comerciales y en caso que se lleve a la compra/venta, la misma no constituye el negocio principal del productor. El sector ha carecido de una organización para lograr una eficiente intensificación de la producción y mercadeo del producto. La producción del sector de pequeños rumiantes fue estimado (2013-2014) en 147,000 lb para un valor (ingreso bruto agrícola) de \$462,000. Nótese que el IBA para el ganado vacuno para la misma fecha fue estimado en \$23.1M.

La empresa de producción de pequeños rumiantes para leche y carne tiene mucho potencial para desarrollo en el Valle de Lajas. Se estima que hay cerca de 45 productores dedicando cerca de 500 cuerdas de terreno. La producción de estos en el área sin la construcción y operación de energía fotovoltaica sería una excelente alternativa para incrementar el valor de este rubro en Puerto Rico.

La industria de pequeños rumiantes contrasta con la industria de carne de res en Puerto Rico, el cual representa el 2.5% del ingreso bruto agrícola de la Isla, produciendo \$21,997,000, según datos preliminares del Departamento de Agricultura para el año 2016/17 (DAPR, 2019). La producción local para el 2017 fue de 110,280 QQ de carne lo que representa el 8.86% del consumo total de la isla. En la zona suroeste del país hay alrededor de 510 fincas en donde se cría ganado según datos del Censo 2018. El 22% de las fincas productoras de ganado se encuentran en esta región. El mercado de carne de res de calidad ha tomado auge. Los clientes se interesan por saber el origen de los alimentos que consumen. El concepto de la finca a la mesa toma mayor notoriedad. Esto brinda la oportunidad de desarrollar y promover productos innovadores, de mayor calidad. Con la adopción de nuevas tecnologías aplicadas a la producción de forrajes y mejoramiento genético del hato la región Suroeste tiene la oportunidad de aumentar su producción, garantizando la seguridad alimentaria de Puerto Rico y mejorar la calidad de vida de los ganaderos.

Una crianza de ovinos para carne no va de la mano con un proyecto de módulos fotovoltaicos. Dicha crianza sería mucho más apropiada en terrenos libres de módulos, con siembras de forrajes mejorados y manejo intensivo de riego y manejo de nutrientes, donde la atención sea completa para la producción agropecuaria, la cual mantendría protegidos los terrenos agrícolas, el suelo, humedales, flora, fauna y donde se creen alternativas reales a favor

de la seguridad alimentaria.

d. Pérdida de terrenos agrícolas en Puerto Rico

La protección y preservación de los terrenos agrícolas en Puerto Rico es de especial importancia. Puerto Rico tiene un área total de 2.271 millones de cuerdas¹²⁰ y un área en terreno agrícola de aproximadamente 487,775 cuerdas (192,037 ha) (USDA-NASS, 2017)¹²¹. Al comparar a Puerto Rico con países homólogos en términos de población, área o localización geográfica tales como Costa Rica, Cuba, República Dominicana y Jamaica, estos países tienen un área total que es 5.6, 11.7, 5.4, 1.2, veces la de Puerto Rico, respectivamente. El área dedicada a la agricultura en estos países es mucho mayor (x veces en paréntesis) que en Puerto Rico con Costa Rica (9.2), Cuba (33), República Dominicana (12.1), Jamaica (2.3). El porcentaje del área total dedicada a la agricultura de todos estos países es de al menos 40% mientras que en Puerto Rico tiene un 22% del área dedicado a la agricultura. Al comparar con 29 paísesteritorios homólogos del Caribe y Costa Rica, Puerto Rico ocupa el escalafón número sexto en área dedicada a la agricultura, pero el un-décimo en términos proporcionales del área total dedicada a la agricultura (área agrícola/área total). Este cuadro pone en precariedad la seguridad alimentaria de Puerto Rico y le resta competitividad ante otros países. En resumen, Puerto Rico tiene un área agrícola pequeña y una proporción relativamente pequeña del área total dedicada o separada para la agricultura.

Otro aspecto es la alta tasa de pérdida de área agrícola en Puerto Rico, y la pérdida gradual de competitividad económica agrícola con países homólogos en el Caribe y Centro América. El área en tierras agrícolas (área en fincas) en Puerto Rico se ha reducido gradualmente a través de los años, y en el último quinquenio evaluado ha cambiado de 584,987 cuerdas en 2012 a 487,774 cuerdas en 2017 para una pérdida de 17%, o una pérdida anual de 16,202 cuerdas

Es preocupante el patrón de desvalorización de los terrenos agrícolas en Puerto Rico ante la importancia de generar energía eléctrica barata. El área que potencialmente ocuparían los proyectos de energía verde y su ubicación es preocupante. Estimado del 2018, demuestra que hay al menos 11 proyectos en operación o pre-operación para un total de aproximadamente 273 MW. Sotomayor-Ramírez et al. (2015)¹²² describieron el impacto negativo de las turbinas eólicas en los terrenos de alto valor agrícola en a zona agrícola de Santa

¹²⁰ Basado en proyección métrica NAD1983

¹²¹ USDA-NASS. 2017 Census of Agriculture. Disponible en https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Census_by_State/Puerto_Rico/index.php.

¹²² Sotomayor Ramírez, D., R. Rodríguez Pérez, I. Pagán Roig. 2015. Terrenos agrícolas y energía renovable: Caso de estudio Pattern Energy Inc. en Santa Isabel. 2015. Revista de Administración Pública. 45: 1-27. Volumen especial bajo el tema "La Administración Pública de la Energía: Clave para la Sostenibilidad Puertorriqueña".

Isabel.

Actualmente, el Negociado de Energía de Puerto Rico (NEPR) está impulsando 16 proyectos de energía renovable de placas fotovoltaicas. Muchos de estos proyectos están ubicados en zonas llanas y costeras y de alto valor agrícola. Solo se puede especular sobre el área total que ocuparían estos proyectos. El área que ocupan las fincas por unidad de megavatio (MW) generado varía según la tecnología. Ong et al. (2013)¹²³ determinaron que para fincas de más de 20 MW el promedio de área ocupada en forma directa es de 7.2 acres/MW AC) y el área total de 7.9 acres/MW AC. Basado en el plan del NEPR de generar 590 MW-AC, la huella del impacto de la construcción y operación de los 16 proyectos fotovoltaicos podría llegar a 5,650 acres y muchos de estos en terrenos de alto valor agrícola.

La construcción de este proyecto propuesto y otros en planificación, podría provocar un escenario similar a lo acontecido en Puerto Rico en la década de 1990 a 2000. En ese periodo la población aumentó en un 8.2% y se construyeron más de 100,000 unidades de vivienda en zonas suburbanas aumentando la cubierta urbana en zonas agrícolas en más de un 10% (ParésRamos et al. 2008)¹²⁴. Es preocupante que dueños de grandes extensiones de tierras agrícolas podrían convertir estas tierras a megaestructuras para genera energía solar impactando negativamente la huella agrícola en la isla y exacerbando la ya problemática alta tasa de pérdida de terrenos agrícolas en la isla.

e. Importancia de la agricultura en la economía de Puerto Rico

La agricultura tiene un rol muy importante en la economía de Puerto Rico. Por ejemplo, el Ingreso Bruto Agrícola para el 2014 fue de \$965.4 millones. La agricultura contribuye a la creación de empleos directos e indirectos en otros sectores de la economía debido al efecto multiplicador. Por otra parte, la agricultura aporta a la seguridad alimentaria de la isla al reducir la dependencia de importaciones de alimentos. Este es un factor de gran importancia en Puerto Rico donde aproximadamente el 85% de los alimentos son importados, lo cual aumenta la vulnerabilidad ante los desafíos ambientales. Aun así, cada día vemos más proyectos de inversión que comprometen la actividad agrícola en toda la isla. Expansión urbana, construcción de hoteles, y desarrollo de turbinas eólicas y placas solares son algunos ejemplos de proyectos que han reducido a diferentes escalas las oportunidades agrícolas en Puerto Rico.

Actualmente el municipio de Lajas se encuentra rezagado en varios aspectos socioeconómicos. Por ejemplo, según los datos del Censo (2019), la tasa de participación laboral en el municipio es la más baja dentro de todos los municipios a su alrededor. El porcentaje de

¹²³ Ong, S., C. Campbell, P. Denholm, R. Margolis, G. Heath. 2013. Land-use requirements for solar power in the United States. National Renewable Energy Laboratory. U.S. Department of Energy. Technical Report 6^a20-56290.

¹²⁴ Parés-Ramos, I. K., W. A. Gould, and T. Mitchell Aide. 2008. Agricultural abandonment, suburban growth, and forest expansion in Puerto Rico between 1991 and 2000.. *Ecology and Society* **13**(2): 1.

habitantes con grado de bachillerato o mayor también es el más bajo en su región. Esto pudiera explicar porque la mediana de ingresos del hogar se encuentra entre las más bajas dentro de todos los municipios a su alrededor. Ciertamente es un municipio que, a pesar de generar ingresos por turismo, sigue siendo desventajado en la región suroeste.

Un proyecto de energía fotovoltaica podría dar la impresión que no afecte las propiedades del suelo, relativo a otros usos de terreno. Sin embargo, desarrollar un proyecto de grande escala en la región compromete de todas formas la salud del suelo, y la flora y fauna al eliminar plantas y árboles. Además, este tipo de proyecto compromete el crecimiento económico, debido a que reduce los terrenos disponibles para desarrollo agrícola de esta y futuras generaciones, lo cual es crucial en esta región con menos acceso a oportunidades de empleos y menos ingresos.

En el 2015-2016, la agricultura aportó \$11.3M en Lajas y \$7.8M en Guánica (Conty, 2018), lo que corresponde a entre 1 a 1.5% al ingreso total agrícola del país. El ingreso bruto agrícola puede aparentar ser mínimo, pero este solamente considera el valor en la finca y no considera el efecto multiplicador del valor añadido del producto agrícola ni el de la generación de empleos. En Lajas y Guánica la agricultura puede aportar hasta un 10% del ingreso total municipal, lo que hace que estos municipios dependan principalmente de la agricultura y del turismo. Los principales cultivos en Lajas son el heno, piña y ganado de carne y en Guánica son ganado de carne y hortalizas. Garantizar el área en terrenos agrícolas en la zona de Lajas y Guánica equivale a preservar parte de la economía y el lugar de trabajo de cientos de empleos directos e indirectos.

3. Sobre los recursos suelos en el área propuesta

a. Recursos de suelos en la zona

B-DIA. "...Muchos de los suelos son buenos para cultivar. Suelos en los llanos inundables se encuentran a lo largo de los ríos y arroyos en las llanuras costeras y en valles tierra adentro. Estos suelos generalmente tienen un buen potencial para la agricultura".

B-DIA. El área que ocupa el proyecto tiene aproximadamente 54 tipos de suelo. Las series de suelos más comunes son Altamira gravelly clay (AtD) y Fraternidad clay (FrA). Estos suelos están clasificados como suelos no-hydricos, el Altamira graverlly clay no está considerados como "prime farmland" y el Fraternidad clay se considera como "prime farmland: si es irrigado.

Coincidimos en que el proyecto se pretende construir en los mejores suelos agrícolas de Puerto Rico. Nuestro análisis demuestra que en la zona de interés hay 20 series de suelo, de los cuales algunos tienen más de una fase (Figura 6; Cuadro 3). El 41% del área en suelos (estimada en 999 ha o 2,538 cuerdas) pertenece a los órdenes Vertisol y Mollisol. El 47% del área en suelos pertenece al orden Aridisol y el 17 % del área pertenece a Inceptisol y Entisol.

Los Vertisoles y Molisoles son suelos son de la más alta fertilidad en cuanto a sus propiedades químicas. Los suelos poseen una alta capacidad de intercambio catiónico, pH

neutral a alcalino, alto porcentaje de saturación de bases, alto contenido de materia orgánica, buena disponibilidad de nitrógeno y fósforo, textura franca a franco-arcillosa y estructura friable.

Algunos de los Vertisoles pueden tener una textura más pesada ya que posee arcillas expandibles que tienden a ser pegajosas cuando el suelo está muy húmedo y forma grietas cuando el suelo se seca¹²⁵, y merecen una atención especial en cuanto a las operaciones de labranza y preparación de terreno para la siembra. Los Molisoles ocupan grandes extensiones de tierra en el sur de EE. UU para la producción de granos y a nivel mundial ocupan áreas de importancia agrícola para la producción de cultivos agronómicos como el trigo, maíz, arroz y soja. Los Molisoles tienen un horizonte superficial muy fértil (conocido como epipedón mólico) debido a la adición de materiales orgánicos de gramíneas y vegetación asociada. Los Molisoles son entre los suelos más importantes y productivos para la producción agrícola en EE. UU y a nivel mundial.

Los Aridisoles se caracterizan por un horizonte superficial (capa superior) de color claro con bajo contenido de humus, por las condiciones del suelo seco durante la mayor parte del año, y por una acumulación alta de arcillas, sales solubles o sodio. Estos suelos pueden ser muy productivos con el manejo adecuado. Evidencia de esto es que gran parte de las hortalizas que se producen en Puerto Rico, ocurre en la zona agrícola de Guánica en Aridisols (ejemplo, suelo Guayacán).

Algunos Inceptisoles y Entisoles pueden tener algunas limitaciones en cuanto a la presencia de carbonato calizo y porque tienden a ser un poco menos profundo que otros. No obstante, estos suelos pueden ser tan productivos como otros en zonas adyacentes con el manejo e implementación de tecnología adecuada.

Los terrenos donde se ubican los suelos son de la más alta fertilidad. Nuestro estimado de que un 53% son de alta fertilidad. Nuestro estimado es que cerca de 30% de los suelos o 761 cuerdas, ya tienen infraestructura de riego con acceso al canal de riego del Valle de Lajas. Otras áreas pueden ser dotados con la debida infraestructura para la captación de agua de lluvia para riego o para conectarse al sistema de riego de la Reserva Agrícola del Valle de Lajas. Los suelos llanos con pendiente moderadas con infraestructura de riego facilitan la mecanización de las actividades agrícolas. Debido al alto costo de la mano de obra, la mecanización y automatización de las actividades agrícolas son de vital importancia ahora y en el futuro. En resumen, las características geomorfológicas, infraestructura agrícola, y características físico-químicas permiten que los suelos sean altamente fértiles y la mayoría del área de muy alta productividad. Es importante que no se pierda ni una pulgada de estos suelos ya que son de alto valor.

¹²⁵ H. Eswaran, P.F. Reich, in Encyclopedia of Soils in the Environment, 2005. Hillel, D. (editor).

b. Área clasificada como *Prime Farmland*

B-DIA. “...cualquier impacto sobre los terrenos que sean clasificadas como *Prime Farmland* tienen que cumplir con *Farmland Protection Policy Act (FPPA) 7.U.S.4201*.

Nos preocupa que se reduzca el área de terrenos agrícolas identificados como *Prime Farmland*¹²⁶. Según el catastro de suelos publicado por el Servicio de Conservación de Recursos Naturales (USDA-NRCS), El 50% del área en suelos están clasificados como *Prime Farmland*, *Farmland of Statewide Importance*, o *Prime Farmland if Irrigated and Reclaimed* (Figura 7). La alta fertilidad de los suelos junto con las condiciones climáticas de la zona así le permiten esa clasificación. La poca precipitación de la zona permite menor potencial de lixiviación de nutrientes, menor erosión, menor pérdida de nutrientes por escorrentía, y menor humedad relativa el cual permite mejor control de fitosanitario de patógenos. Las experiencias de este servidor y estudios realizados con colaboradores, estudiantes y agricultores demuestran que los terrenos donde se ubicará el proyecto son de alto valor agrícola y se pueden considerar como entre los mejores suelos de Puerto Rico, debido a la combinación de las propiedades físicas, químicas y biológicas (USDA, 2020)

c. Potencial de productividad agrícola de la zona

Se tomaron imágenes Sentinel 2A para la zona para el 15 agosto 2020. En dichas áreas se identificaron las áreas: A- Finca Bayer; B – Humedal; C - Área agrícola de alta productividad; D – Área agrícola del Anegado que tiene acumulación transitoria de agua durante eventos de tormenta; E – Area vegetal removida entre julio y agosto 2020.

En la imagen en color natural (*True Color*) (Figura 8-I), se demuestran el área de interés y la vegetación creciendo en la zona. La imagen en falso color (*False Color*) (Figura 8-II) permite observar el efecto de la vegetación actual, área en suelo desnudo (sin vegetación por arado y actividad agrícola), área de acumulación mayor de agua en el suelo y área donde hay remoción de vegetación reciente. La imagen de NDVI (*Normalized Difference Vegetation Index*) (Figura 8III) demuestra las áreas verdes de mayor crecimiento vegetativo y acumulación de biomasa.

¹²⁶ USDA. 2020. “*Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent.*”

https://www.nrcs.usda.gov/wps/portal/nrcs/detail/null/?cid=nrcs143_01405”.

En el área C y D, hay menor vegetación posiblemente por acumulación excesiva de agua en el perfil. Se observa la ausencia de vegetación en los suelos desnudos en A y en la comunidad Cuesta Blanca. En la imagen de humedad del suelo (Figura 8-IV), se observan las áreas C y D con mayor humedad en el suelo. El área E se observa con mayor humedad en el suelo posiblemente por la ausencia de vegetación (que existía) previo a junio 2020. Este breve análisis demuestra que la zona donde se pretende construir y operar el proyecto de energía fotovoltaica tiene tan alta productividad como el resto del Valle de Lajas.

d. Compatibilidad entre el proyecto y actividades agrícolas

B-DIA. “El Proyecto según diseñado es totalmente compatible con las actividades agrícolas existentes y propuestas. Inclusive, facilita el acceso a la finca para dichas actividades.” “En términos de bienestar social, el Proyecto promueve el empleo local para labores de construcción y mantenimiento y no afecta o limita temporera o permanentemente las oportunidades de trabajo existentes o proyectadas en el área agrícola. Por el contrario, al mejorar la seguridad del predio, el Proyecto previene actividades delictivas en el área y evita los vertederos clandestinos. También, al viabilizar el uso agrícola del predio, el Proyecto induce la creación de empleos agrícolas del área.”.

El proyecto propuesto no es compatible con la actividades actuales de producción de forraje para producir heno y para la ganadería de bovino (carne). Se realizó un análisis del área ocupado por los módulos fotovoltaicos, basado en la Finca Oriana en Aguadilla/Isabela. Dicha facilidad está dividida en dos áreas de 35 ha cada una para un total de 70 ha (Figura 9). El material vegetativo debajo de los módulos ocupa un 51% del área, por lo que dicha área reduciendo la actividad fotosintética de las gramíneas y otra vegetación arbustiva creciendo, limitando grandemente la producción vegetal. Observaciones visuales hechas por este servidor en fincas solares así también lo demuestran. El restante del 49% del área, aquella franja entre los módulos solares, posiblemente tenga algunas reducciones en duración diaria de radiación solar. Nuestro estimado es que la franja vegetativa tiene un ancho de 10 pies, lo cual podría sostener algún tipo de actividad agrícola pecuaria de muy baja intensidad. Esto, porque no se contempla la aplicación de insumos externos (riego y fertilización) para incrementar la producción vegetal (rendimiento) por lo que la productividad animal se espera que sea relativamente baja.

4. Sobre el potencial impacto en los recursos naturales

Al momento, parece haber escasa información científica para evaluar todos los impactos que pueden tener la construcción, operación, expansión de infraestructura de transmisión y decomisión de las instalaciones centralizadas a grande escala (*utility-scale solar energy*, USSE) como la propuesta en la Finca Montalva, sobre los recursos naturales y los terrenos agrícolas

(Cook et al. 2013¹²⁷; Turney y Fthenakis, 2011¹²⁸; Hernandez et al. 2013¹²⁹). Esto incluye el potencial para la compactación y erosión durante la construcción, efecto sobre la población y diversidad de vida silvestre, modificación de los procesos hidrológicos del suelo (Figura 11). No obstante, la información existente sugiere que las fincas solares pueden tener un impacto negativo sobre el exceso de escorrentía, las tasas de erosión y sedimentación en cuerpos receptores. Los paneles fotovoltaicos son impermeables, la precipitación que cae sobre su superficie viaja hacia el extremo inferior del panel y cae libremente sobre la superficie del suelo. Cada panel produce una escorrentía en magnitud igual a la precipitación recibida; siendo descargada en su extremo de menor elevación como un flujo concentrado. Esta acción convierte los eventos de precipitación, especialmente los de mayor magnitud, en unos de alta intensidad con alto poder erosivo sobre el suelo. La lluvia que antes del panel se distribuía en un área permeable igual a la superficie del panel, ahora caería sobre una superficie impermeable y luego al suelo de manera concentrada a lo largo del extremo de menor elevación sobre el terreno, convirtiendo un evento de menor impacto en uno de hasta más de 1,000 veces más intenso (L. Pérez-Alegría, comunicación personal)¹³⁰. Como es de esperarse, la impermeabilización aparente del terreno, no solo cambia el patrón de movimiento de la escorrentía superficial sino que: i) puede producir un aumento de hasta 73% del flujo máximo de escorrentía dependiendo de la cobertura del terreno debajo del panel, ii) reducir el tiempo de concentración y iii) aumentar en 10 veces o más la energía cinética de la escorrentía aumentando el poder de erosión y socavación del suelo (Cook y McCuen, 2013)¹³¹. Por tales razones, un proyecto de tal magnitud como el propuesto en la Reserva Agrícola va a aumentar el potencial de exportación de sedimentos y como consecuencia, aumentar la entrada de nutrientes en las aguas receptoras de la costa sur oeste de Puerto Rico.

Según Hernández et al. (2013) los USSE pueden fragmentar el hábitat de vida silvestre y servir de barrera migratoria. En áreas de escasas de agua, los proyectos de USSE como el propuesto pueden tener conflicto con los usuarios para uso doméstico y agrícola en áreas con precipitación limitada, como ocurre en la zona Lajas-Guánica. En el Valle de Lajas, el agua para consumo humano y agrícola se originan del agua que se mueve del este al oeste a través del canal de riego al norte del Valle de Lajas. Según Hernandez y otros, estos riesgos no pueden ser minimizados y estos sugieren la instalación de USSE en tierras ya degradadas. Existe la

¹²⁷ Cook, L.M., R.H. McCuen. Hydrologic response of solar farms. J. Hydrol. Eng. 2013.18:536-541.

¹²⁸ Turney, D., V. Fthenakis. 2011. Environmental impacts from the installation and operation of large-scale solar power plants. Renewable and Sustainable Energy Reviews. 15: 3261-3270.

¹²⁹ Hernandez, R.R. et al. 2013. Environmental impacts of utility-scale solar energy. Renewable and Sustainable Energy Reviews. 29: 766-779.

¹³⁰ Usando solo un panel PV de 250 watts de 61.3inx41.2in. El modulo de 1MW producirá energía erosive aún mayor.

¹³¹ Cook L.M. and R.H. McCuen, 2013. Hydrologic response of solar farms. J. Hydrol. Eng., 18:536-541.

necesidad de encontrar sitios alternos de forma tal que se minimicen los impactos sobre la producción agrícola y sus terrenos.

Hernandez et al. (2015)¹³² evaluaron el impacto de proyectos de energía solar sobre los cambios en la cubierta de tierra y áreas protegidas. En el estado de California solamente el 15% de las instalaciones estaban localizadas en áreas “combatibles” o adecuadas, según criterios ambientales y agrícolas. Coinciden Hernandez y otros que la ubicación de instalaciones USSE en áreas ya impactadas por actividad humana (o suelos degradados y de menor productividad agrícola), reduce la oportunidad de que ocurran impactos ambientales adversos y a la vez que se puedan cumplir las metas de producción de comida para futuras generaciones.

Dahlin et al. (2011)¹³³ sugieren que la demanda energética de EE. UU se puede satisfacer sacrificando el 11% del área total en cultivos (o 101.4 x 10⁶ ha). Esto es equivalente al área del estado de California. Una propuesta como esta no tiene sentido ya que el área agrícola en EE. UU se está reduciendo aproximadamente 2% por año y existe la necesidad de duplicar la producción de bienes agrícolas en al menos 40% para el año 2050.

Ifft et al. (2018)¹³⁴ describieron como los desarrolladores de las facilidades en el estado de Nueva York tienen distintas perspectivas en cuanto a la localización para las fincas solares. Los sitios más atractivos para la instalación de los megaproyectos son en fincas agrícolas, atraídos por la calidad de los terrenos, y al envejecimiento de los agricultores, balance de ingresos-deudas de los dueños de fincas (*landowners*), y la promesa de grandes ganancias de dinero para los tenedores de los terrenos al cederlos para la actividad. En ese estado se ha reconocido la participación y involucramiento de la ciudadanía en el proceso de toma de decisiones como uno de los factores más importantes para poder hacer evaluaciones responsables del impacto de los megaproyectos.

Los estados de EE. UU. tienen diferentes políticas en cuanto a la localización de fincas solares y su impacto en terrenos agrícolas. Por ejemplo, California tiene como política favorecer el desarrollo de energía solar en terrenos que no son hábitat valioso de vida silvestre, áreas abiertas o agrícolas (Ifft et al. 2018). Solamente terreno agrícola del más bajo valor (*nonprime agricultural land*) puede ser convertido a desarrollo solar y con impuestos adicionales. En Carolina del Norte se reconoce que la transición de uso de tierra agrícola producción solar es muy atractivo para el propietario debido a que los pagos por los contratistas son mayores que

¹³² Hernandez, R.R. y otros. 2015. Solar energy development impacts on land cover change and protected áreas. PNAS. 112 (44) 13579-13584

¹³³ Dahlin et al. 2011 , citado por Hernandez et al. 2013.

¹³⁴ Ifft, J. T. Grout, D. Kay, D. Budgen, F.Kay, D. Lane, C. Rondem, R. Stedman, J. Sward, M. Zhang. 2018. Large-scale solar information and research needs for New York State. Community and Regional Development Institute, Cornell University. Cardi Reports/Issue 18/Mayo 2018.

el ingreso agrícola (NC-State Cooperative Extension)¹³⁵. Uno de los aspectos a considerar es como la incentivos y créditos de impuestos, y tecnología cambian con el tiempo resultando en tecnología obsoleta que acaba siendo abandonada en poco tiempo. Esto presenta un dilema muy interesante para Montalva Solar Farm. ¿Qué pasaría si por alguna razón la finca solar se abandona en pocos años? ¿Puede la finca solar ser decomisada a un bajo costo, quién lo pagará y podrá revertirse a su estado original? El estado de Massachussets prohíbe la instalación de fincas solares en localizaciones que resulta en una pérdida significativa de terrenos de valor agrícola o recursos naturales, prefiriendo la instalación en techos de estructuras (MEOEEA, 2014)¹³⁶.

Parte de uno o varias de las fincas agrícolas están en una zona clasificado como humedal. La conversión de humedal a agrícola ocurrió posiblemente muchos años atrás cuando esto se permitía, pero la tierra agrícola actualmente está protegida como “prior converted wetland” (PCW). Con la instalación de la finca solar, se estaría convirtiendo tierra agrícola PCW a un uso industrial. Tampoco queda claro como se manejará aspectos tales como uso de tierras en PCW, debido al abandono temprano de la finca solar o al final de su vida útil.

5. Sobre la ordenación legal de uso de terrenos y su relación con el proyecto

El proponente utiliza como guía el mapa de calificación del plan territorial del Municipio de Lajas adoptado por la Junta de Planificación el 28 de junio de 2017 y el Reglamento Conjunto de 2019 (RC, 2019)¹³⁷. El uso de RC 2019 es cuestionable, pero es menester de los peritos en asuntos legales dilucidar la legalidad de dicho documento.

En el RC2019 (Tomo VI, Capítulo 6.1) se establecen y definen las diferentes tipologías de calificación de suelos para establecer usos y distritos de calificación uniformes (RC, 2019). En el RC 2019 (Equivalencias Distritos de Calificación) se modificaron todas las calificaciones relacionadas y relevantes a la agricultura que existían en el RC 2010¹³⁸. Por ejemplo, la calificación Agrícola General Dos, Agrícola General Tres y Agrícola General Cuatro (A-2, A-3, A-4, respectivamente) y Agrícola en Reserva Dos (AR-2) se convierten en Rural General (R-G). La

¹³⁵ NC-State Cooperative Extension. Considerations for transferring agricultural land to solar panel energy production. Disponible en: <https://craven.ces.ncsu.edu/considerations-for-transferring-agricultural-land-to-solarpanel-energy-production/>.

¹³⁶ MEOEEA. 2014. Model zoning for the regulation of solar energy systems. Disponible en: <https://www.mass.gov/files/documents/2016/08/nc/model-solar-zoning.pdf>.

¹³⁷ Reglamento Conjunto para la Evaluación y Expedición de Permisos relacionados al Desarrollo, Usos de Terrenos y Operación de Negocios” o como el “Reglamento Conjunto 2019”. Disponible en: <https://jp.pr.gov/Reglamentos/Reglamento-Conjunto-2019>.

¹³⁸ *Reglamento Conjunto de Permisos para Obras de Construcción y Usos de Terrenos* (Reglamento Conjunto 2010).

calificación Agrícola Productivo (A-1) y Agrícola en Reserva Uno (AR-1) se convierten en Agrícola Productivo (A-P). Además, las calificaciones agrícolas se unificaron con otras que no guardan relación con la agricultura (como por ejemplo Terrenos Urbanizables, U-R) con la calificación AP. La agrupación de calificaciones específicas, en donde previamente se han reconocido sus características particulares y su respectivo valor intrínseco, dentro de calificaciones más amplias, desvaloriza aquellas calificaciones que son importantes para distinguirlas y podría permitir usos que ahora no son permitidos. En dicho documento no hay criterios o justificación científica que sirva para justificar los mencionados cambios.

Las Reservas Agrícolas han sido creadas mediante legislación, comenzando con la creación de la Reserva Agrícola del Valle de Lajas (Ley 277 del 20 de agosto 1999). Estas Reservas responden a una política especial y de cuidado por parte del estado, por el valor especial agropecuario y para la seguridad alimenticia que representa esta zona y para el disfrute para la presente y futuras generaciones. Se entiende que el RC (2019) no puede ir por encima de la Ley 277, la cual establece que los terrenos dentro de la Reserva Agrícola del Valle de Lajas son para uso exclusivo agrícola.

Otro aspecto de importancia en el RC 2019 es que La Junta Adjudicativa podrá autorizar los usos no atendidos ministerialmente vía consultas de ubicación en Reservas Agrícolas, Naturales o Áreas de Planificación Especial. Entre los criterios a considerarse en Reservas Agrícolas, Naturales, Plan Sectorial o Áreas de Planificación Especial, se establece que la parte interesada debe demostrar que tiene la capacidad de operar el uso juiciosamente y que la operación del uso resulta conveniente y adecuada al interés público, a base de varios criterios (once de ellos), entre los cuales, el #2 establece que “No se afecta la integridad ecológica de la Reserva Agrícola, Natural o del Área de Planificación Especial, y que no ocasione peligro a los recursos naturales, históricos, culturales y agrícolas existentes.” Esta aseveración es demasiado liberal y no les da suficiente protección a los terrenos agrícolas de Puerto Rico para evitar que sean convertidos a usos urbanos u otros de carácter no-agrícola.

IV. Recomendaciones y conclusiones

Existe un plan de desarrollo agrícola para la Reserva Agrícola del Valle de Lajas, donde se proveen proyecciones económicas en al menos once empresas agrícolas (Comas-Pagán, 2016). El estudio provee análisis científico detallado que incluye planes de acción y estrategias para ser implementados. Se sugiere que se visite dicho plan como alternativa para las actividades agrícolas que actualmente se están realizando. Basado en la opinión profesional de este servidor, se recomienda que se establezca la empresa de producción de ovinos en 1,593 cuerdas de la finca siguiendo las recomendaciones del Servicio de Extensión Agrícola de la Universidad de Puerto Rico, Recinto Universitario de Mayagüez. Como alternativa, también, hay cultivos alternos de mayor rentabilidad económica que la producción de forraje y ganadería de carne, que se podrían establecer en la zona.

La necesidad de aumentar la proporción del consumo energético de Puerto Rico con fuentes de energía renovable para reducir la dependencia de combustibles fósiles, reduciendo

así el impacto ambiental, contribuyentes al cambio climático, y reducir el costo de energía está ya estipulado y aceptado por la comunidad científica, académica y hasta el público en general. La generación de energía fotovoltaica es una alternativa viable. Hay varios estudios que demuestran la viabilidad de la instalación de placas solares en techos de estructuras ya existentes y micro-redes comunitarias y que su beneficio económico y ambiental es mayor que el de la instalación en grandes extensiones de terreno (Irizarry-Rivera et al. 2009¹³⁹; O'Neill-Carrillo et al. 2017¹⁴⁰; O'Neill-Carrillo e Irizarry-Rivera, 2019¹⁴¹; Aponte et al. 2017¹⁴²; Queremos Sol, 2019¹⁴³; Irizarry-Rivera-Agustín, 2019¹⁴⁴) como la propuesta en *Montalva Solar Farm*.

Testimonios de experto, estudios, y análisis publicados por académicos y científicos de la Universidad de Puerto Rico y la participación de grupos comunitarios, así lo demuestran (ver citaciones). La inversión de \$250 M se podría utilizar para lograr que la energía para ser generado se haga en techos de estructuras en la zona suroeste de Puerto Rico, e incentivar la actividad económica orientada a los pequeños rumiantes y ganadería de carne de res en el suroeste de Puerto Rico

¹³⁹ A.A. Irizarry Rivera, J.A. Colucci Ríos, E. O'Neill Carillo, "Achievable Renewable Energy Target's For Puerto Rico's Renewable Energy Portfolio Standard, Final Report to the Puerto Rico's Energy Affairs Administration, November, 2009 (contract number 2008-132009).

¹⁴⁰ O'Neill-Carrillo, E. A. Irizarry-Rivera, I. Jordán, R. Cintrón. 2017. The long road to community microgrids. IEEE Electrification Magazine. Dec. 2018. P. 6-17.

¹⁴¹ O'Neill-Carrillo, E. y A. Irizarry-Rivera. 2019. How to Harden Puerto Rico's grids against hurricantes. 42: Specctrum IEEE.org. 7 p.

¹⁴² Aponte, E.E., E. O'Neill-Carrillo, E.I. Ortíz-Rivera, M. Castro-Sitiriche, L. Orama-Exclusa, A. RamírezOrquín, A. Irizarry-Rivera. 2019. Letter to Hon. Judge Laura Taylor Swain, on behalf of University of Puerto Rico Professors regarding the vision for a sustainable energy future for Puerto Rico.

¹⁴³ Queremos Sol. 2019. Sostenible, local, limpio. Ver. 3. Queremossolpr.com Disponible en: <https://www.queremossolpr.com/>.

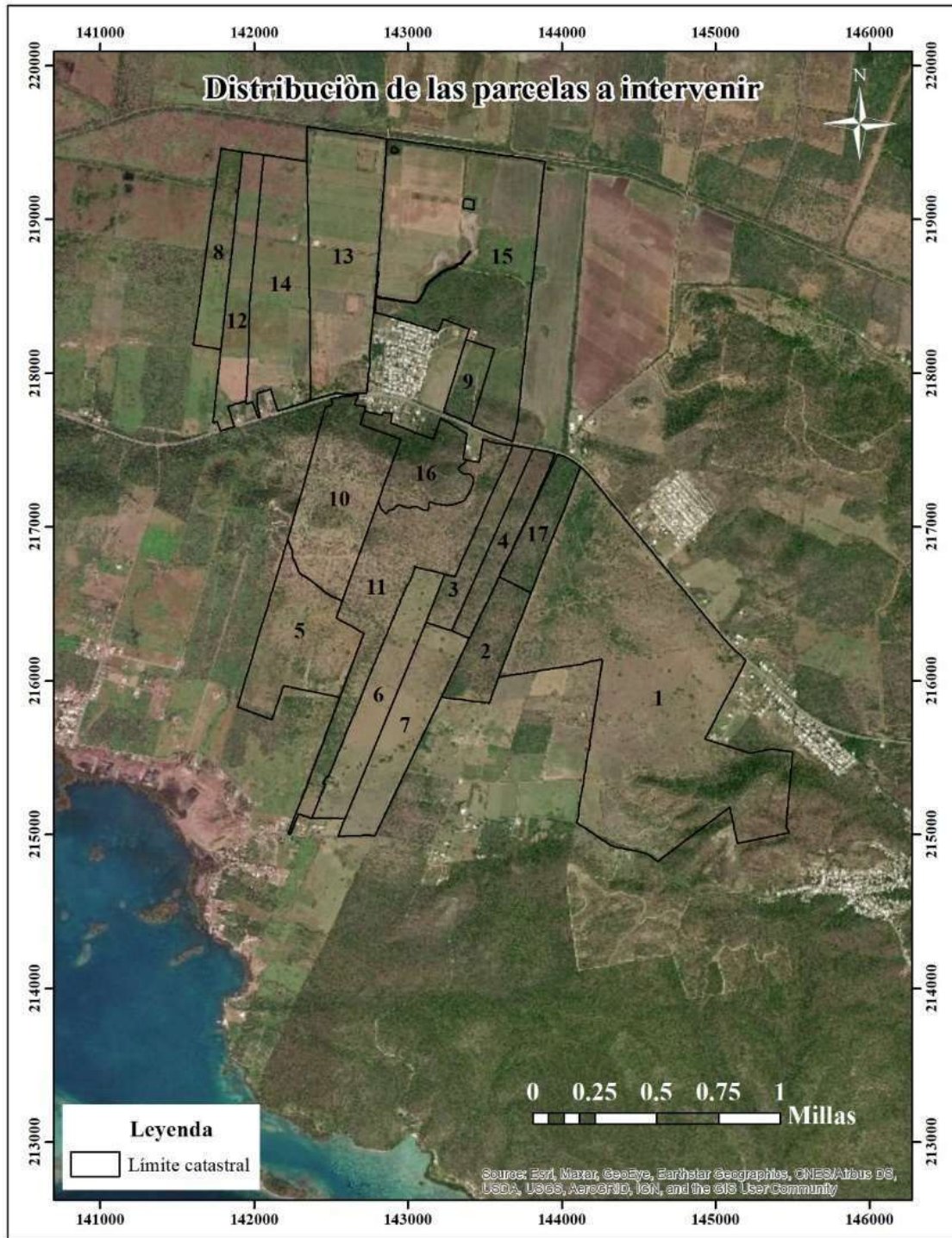
¹⁴⁴ Irizarry-Rivera, A. 2019. Expert Report of Agustín Irizarry-Rivera Pursuant; PROMESA Title III - No. 17 BK 3283-LTS and PROMESA Title III - No. 17 BK 4780-LTS. United States District Court for the District of Puerto Rico. 24 p.

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Figuras y cuadros

Figura 1. Parcelas identificadas en el área de construcción.



**Sotomayor Ramírez; Impacto de la construcción y operación del proyecto Montalva Solar Farm
Figuras y cuadros del informe**

Cuadro 1. Detalles de las parcelas que componen el área en construcción (ver Figura 1) (CRIM, 2020). Nótese pueden haber varios catastros asociados a la misma parcela.

Parcela	-----Detalles-----	
Parcela 1	Catastro: 428-000-004-01-027 Parcela: 428-000-004-01 Procedencia: 428-000-004-01 Dueño: RODRIGUEZ VARGAS ALFREDO Dirección física: SECTOR MAGUEYES, GUANICA Cabida escritura: 0.00 m2 Área de mapa: 3,493,554.71 m2	Catastro: 428-000-004-01-901 Parcela: 428-000-004-01 Procedencia: 428-000-004-01 Dueño: RAMIREZ ACOSTA JOSE B Dirección física: BO MONTALVA CARR 116, GUANICA Cabida escritura: 3,215,845.10 m2 Área de mapa: 3,493,554.71 m2
Parcela 2	Catastro: 406-000-008-03-000 Parcela: 406-000-008-03 Procedencia: 406-000-008-03 Dueño: SOTO ALMODOVAR INES Dirección física: E11 CARR 325 URB VALLE TANIA, GUANICA Cabida escritura: 234,251.24 m2 Área de mapa: 241,833.46 m2	
Parcela 3	Catastro: 406-000-003-05-000 Parcela: 406-000-003-05 Procedencia: 406-000-003-05 Dueño: RAMIREZ TIO LAURA DEL ROSARIO Dirección física: KM.HM 4.3 CARR 324 BO COSTA, LAJAS Cabida escritura: 195,851.33 m2 Área de mapa: 200,259.66 m2	
Parcela 4	Catastro: 406-000-003-35-000 Parcela: 406-000-003-35 Procedencia: 406-000-003-35 Dueño: RAMIREZ TIO FERNANDO Dirección física: KM.HM 4.3 CARR 324 BO COSTA, LAJAS Cabida escritura: 175,688.43 m2 Área de mapa: 204,637.61 m2	
Parcela 5	Catastro: 406-000-007-25-000 Parcela: 406-000-007-25 Procedencia: 406-000-007-25 Dueño: RAMIREZ TIO LAURA DEL ROSARIO Dirección física: KM.HM 9.0 CARR .116 BO COSTA, LAJAS Cabida escritura: 925,017.29 m2 Área de mapa: 517,259.44 m2	

Sotomayor Ramírez; Impacto de la construcción y operación del proyecto Montalva Solar Farm
Figuras y cuadros del informe

Parcela 6 Catastro: 406-000-008-22-000
Parcela: 406-000-008-22
Procedencia: 406-000-008-22
Dueño: RAMIREZ ACOSTA JOSE B
Dirección física:
KM.HM 7.4 CARR 324 BO COSTAS, LAJAS
Cabida escritura: 359,709.29 m2
Área de mapa: 390,708.10 m2

Parcela	-----Detalles-----
Parcela 7	Parcela 12

Parcela 8

Parcela 9

Parcela 10

Parcelas
11, 15 y 16

**Sotomayor Ramírez; Impacto de la construcción y operación del proyecto Montalva Solar Farm
Figuras y cuadros del informe**

Catastro: 406-000-008-23-000
Parcela: 406-000-008-23
Procedencia: 406-000-008-23
Dueño: RAMIREZ TIO ALBERTO
Dirección física:
KM.HM 7.4 SEC LOS HORNO BO COSTAS,
LAJAS

Cabida escritura: 383,330.94 m²

Área de mapa: 427,184.13 m²

Catastro: 406-000-002-02-000

Parcela: 406-000-002-02

Procedencia: 406-000-002-02

Dueño: TORRES VDA PIETRI ISIDRA

Dirección física:

KM.HM 9.0 CARR .116 BO COSTA, LAJAS

Cabida escritura: 54.00 m²

Área de mapa: 232,942.34 m²

Catastro: 406-000-003-41-000

Parcela: 406-000-003-41

Procedencia: 406-000-003-39

Dueño: RAMOS CRUZ CARLOS

Dirección física:

KM.HM 14.4 CARR 116 BO COSTAS, LAJAS

Cabida escritura: 98,259.75 m²

Área de mapa: 109,341.63 m²

Catastro: 406-000-002-07-002

Parcela: 406-000-002-07

Procedencia: 406-000-002-07

Dueño: RODRIGUEZ SANABRIA LUIS

ANGEL

Dirección física:

KM.HM 14 CAMNO LA CEIBA BO SABANA

YEGUAS, LAJAS

Cabida escritura: 0.00 m²Área de mapa:

611,705.11 m²

Catastro: 406-000-003-42-000

Parcela: 406-000-003-42

Procedencia: 406-000-003-39

Dueño: RAMIREZ ACOSTA JOSE B

Dirección física:

KM.HM 14.4 CARR 116 BO COSTAS, LAJAS

Cabida escritura: 2,045,650.08 m²

Área de mapa: 2,534,223.76 m²

Catastro: 406-000-002-04-000

Parcela 13 edencia: 406-000-002-04 Dueño:

Parcela: 406- RAMIREZ TIO LAURA DEL ROSARIO

000-002-04 Dirección física:

P BO COSTAS, LAJAS

r Cabida escritura: 490,394.76 m²

o Área de mapa: 306,410.49 m²

c Catastro: 406-000-002-07-001

Catastro: 406-000-002-07-001

Parcela: 406-000-002-07

Procedencia: 406-000-002-07

Dueño: SUCN JUAN JOSE ORTIZ SANTANA

Dirección física:

KM.HM 14 SEC CUESTA BLANCA BO COSTAS,

LAJAS

Cabida escritura: 687,661.03 m²Área de mapa:

611,705.11 m²

Catastro: 406-000-002-07-002

**Sotomayor Ramírez; Impacto de la construcción y operación del proyecto Montalva Solar Farm
Figuras y cuadros del informe**

Parcela	-----	-----	-----	-----	-----	-----	-----	-----	-----
Parcela	-----	-----	-----	-----	-----	-----	-----	-----	-----
		Parcela: 406-000-002-07		Parcela: 406-000-002-07					
		Procedencia: 406-000-002-07		Procedencia: 406-000-002-07					
		Dueño: SUCN JUAN JOSE ORTIZ SANTANA		Dueño: RODRIGUEZ SANABRIA LUIS					
		Dirección física:		ANGEL					
		KM.HM 14 SEC CUESTA BLANCA BO		Dirección física:					
		COSTAS, LAJAS		KM.HM 14 CAMNO LA CEIBA BO SABANA					
		Cabida escritura: 687,661.03 m2		YEGUAS, LAJAS					
		Área de mapa: 845,307.41 m2		Cabida escritura: 0.00 m2					
				Área de mapa: 845,307.41 m2					
Parcela 14		Catastro: 406-000-002-25-001							
		Parcela: 406-000-002-25							
		Procedencia: 406-000-002-05							
		Dueño: RAMIREZ TIO LAURA DEL ROSARIO							
		Dirección física:							
		REM CARR.116 KM13.3 BO COSTAS, LAJAS							
		Cabida escritura: 817,049.47 m2							
		Área de mapa: 869,126.96 m2							
Parcela 17		Catastro: 406-000-003-07-901		Catastro: 406-000-003-07-000					
		Parcela: 406-000-003-07		Parcela: 406-000-003-07					
		Procedencia: 406-000-003-07		Procedencia: 406-000-003-07					
		Dueño: RAMIREZ ACOSTA JOSE B		Dueño: RAMIREZ SOTO ZORAIDA					
		Dirección física:		Dirección física:					
		KM.HM 9.0 CARR .116 BO COSTA, LAJAS		E11 CARR 325 URB VALLE TANIA,					
		Cabida escritura: 727,122.15 m2		GUANICA					
		Área de mapa: 211,727.57 m2		Cabida escritura: 175,295.39 m2					
				Área de mapa: 211,727.57 m2					

Figura 2. Identificación de áreas < 4m, entre 4 y 50 m y > 50m.

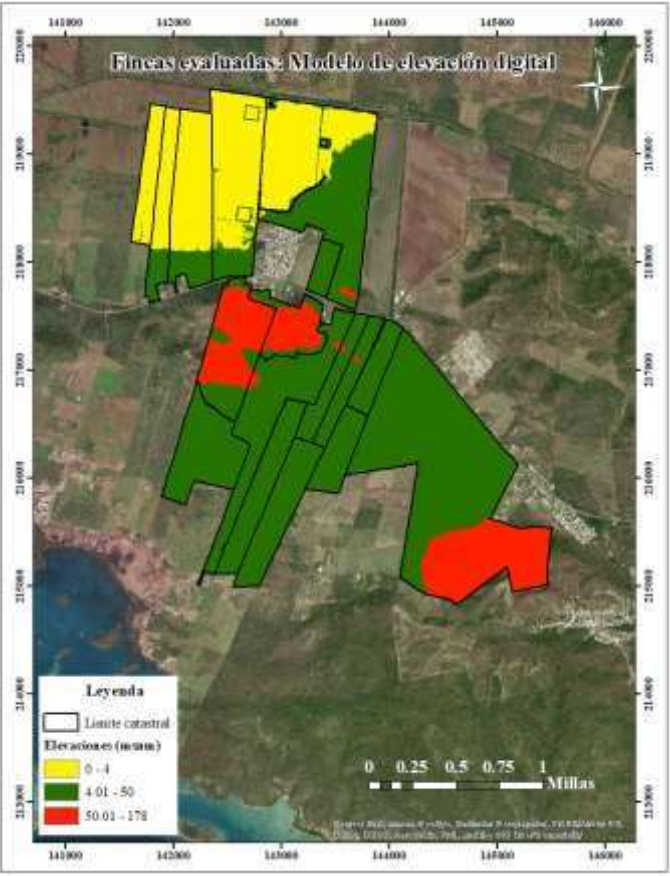


Figura 3. Distribución del área en la finca según tres clasificaciones de altura

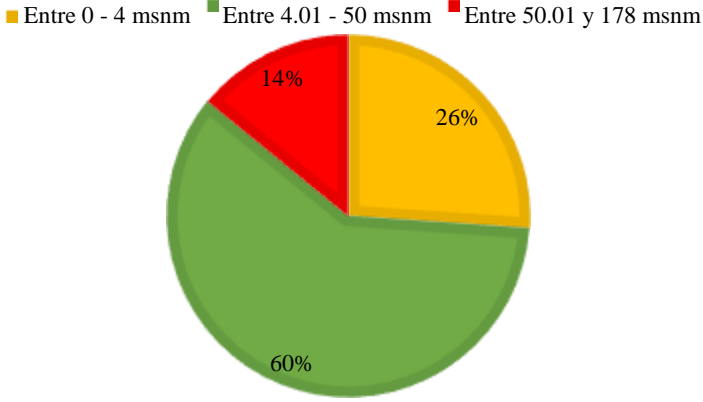


Figura 4A. Imágenes satelitales entre 1993 y 2020 evidenciando la vegetación en la zona en el recuadro (parcelas, 2, 4 y 17; ver Figura 1).

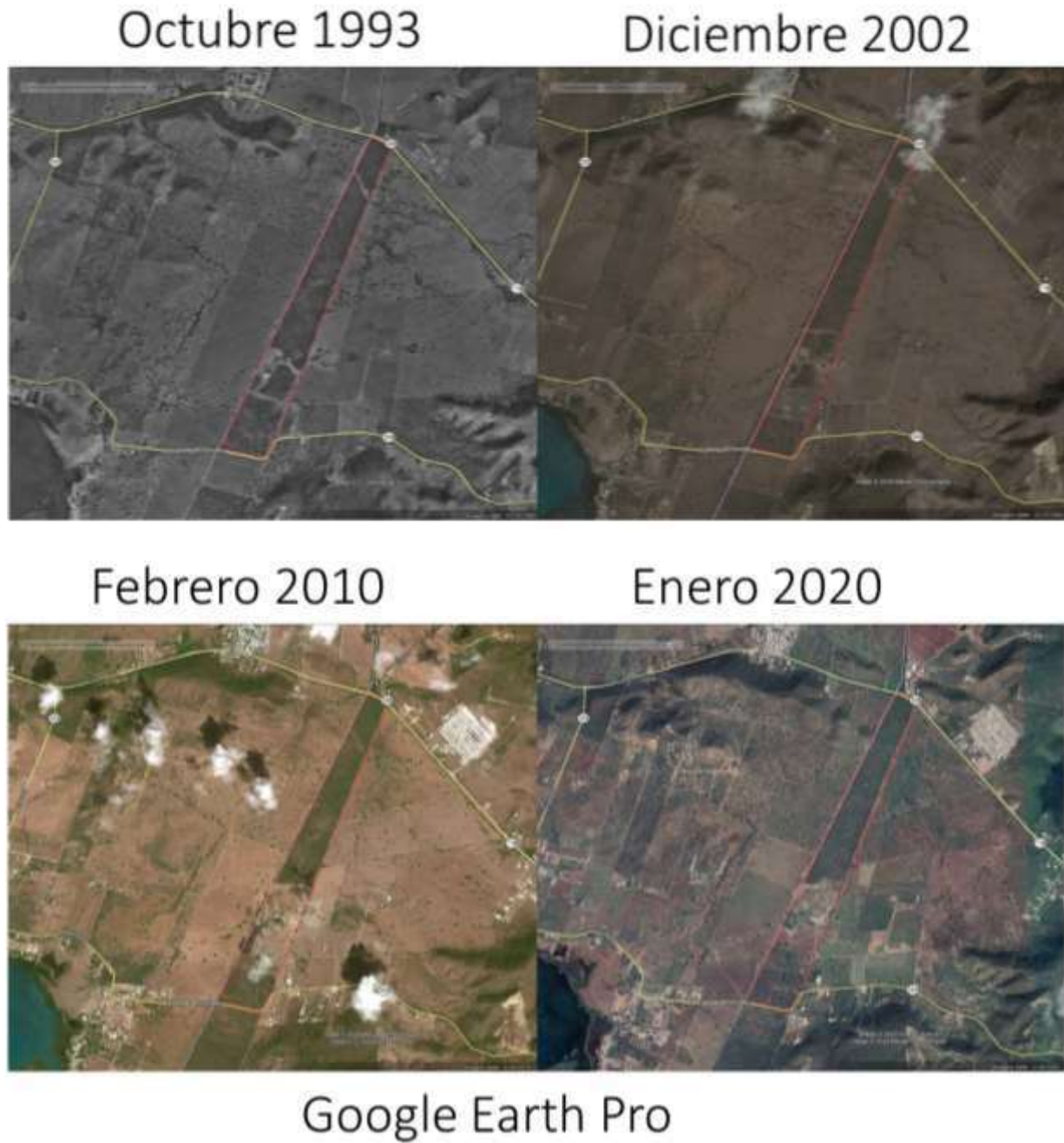
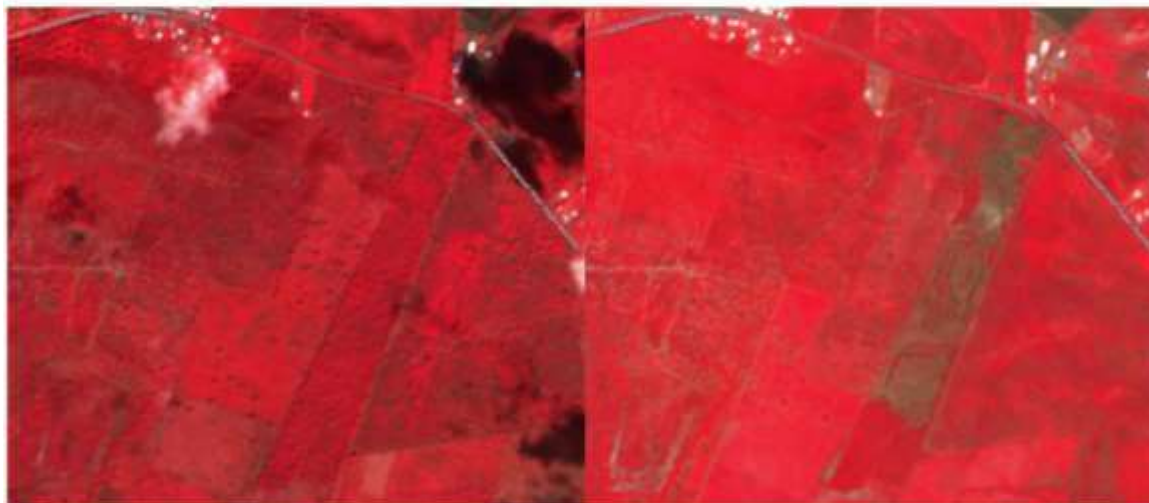


Figura 4B. Imágenes satelitales Sentinel2A en enero 2020 (antes de la remoción vegetativa) y agosto 2020 (posterior de la remoción vegetativa) en las parcelas 2, 4 y 17; ver Figura 1. Evidencia la remoción de vegetación en la zona está en color pardo en contraste con el color rojo de la vegetación.

18 enero 2020

20 Agosto 2020



Sentinel 2A (Imagen en falso color)

Cuadro 2. Resumen de las proyecciones económicas anuales para las empresas agrícolas en la zona.

	Conty 1	Comas 2	Conty 3	Comas 3	Conty 4	Comas 4
	Valor		Valor			
	\$/cuerda)	\$/cuerda)	-----	-----	-----	-----
Cultivo						
Forraje (heno)	\$478	\$1,657	\$326,557	\$1,130,938	\$150,963	\$522,819
Cultivos	\$8,214	\$19,200			\$6,028,814	\$14,092,800
Ganado	\$480	\$946	\$546,017	\$1,076,109	\$369,857	\$728,927
Total			\$872,574	\$2,207,048	\$6,549,635	\$15,344,547

1 – Basado en datos empíricos de Conty (2018)

2 – Basado en proyecciones económicas de Comas-Pagán (2016)

3 – Basado en el área que ocupa cada empresa

4 – Considerando que el 50% del área en forraje y ganado vacuno se convierta a cultivo de alto valor.

Figura 5. Ubicación de empresas agrícolas en la zona de construcción.

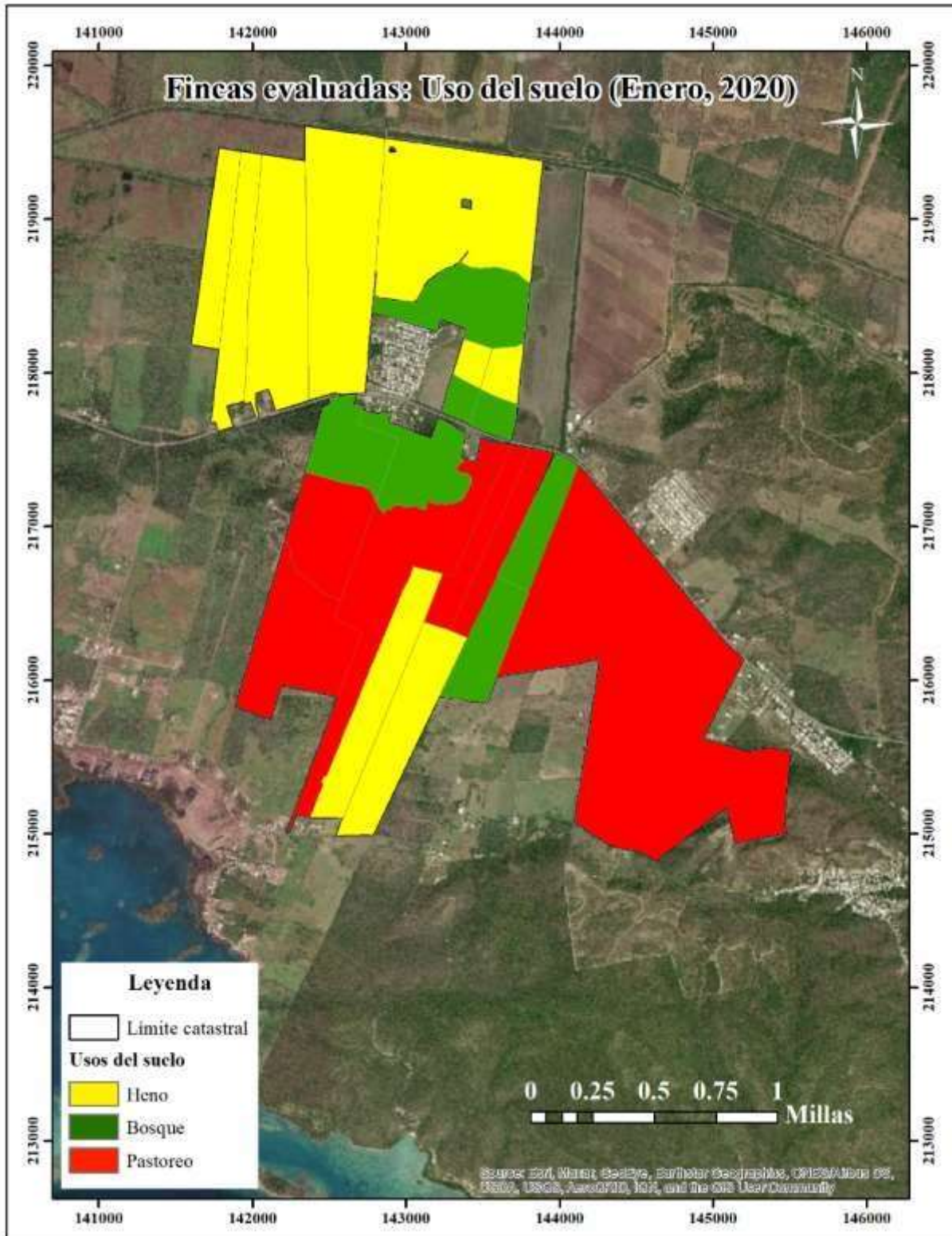
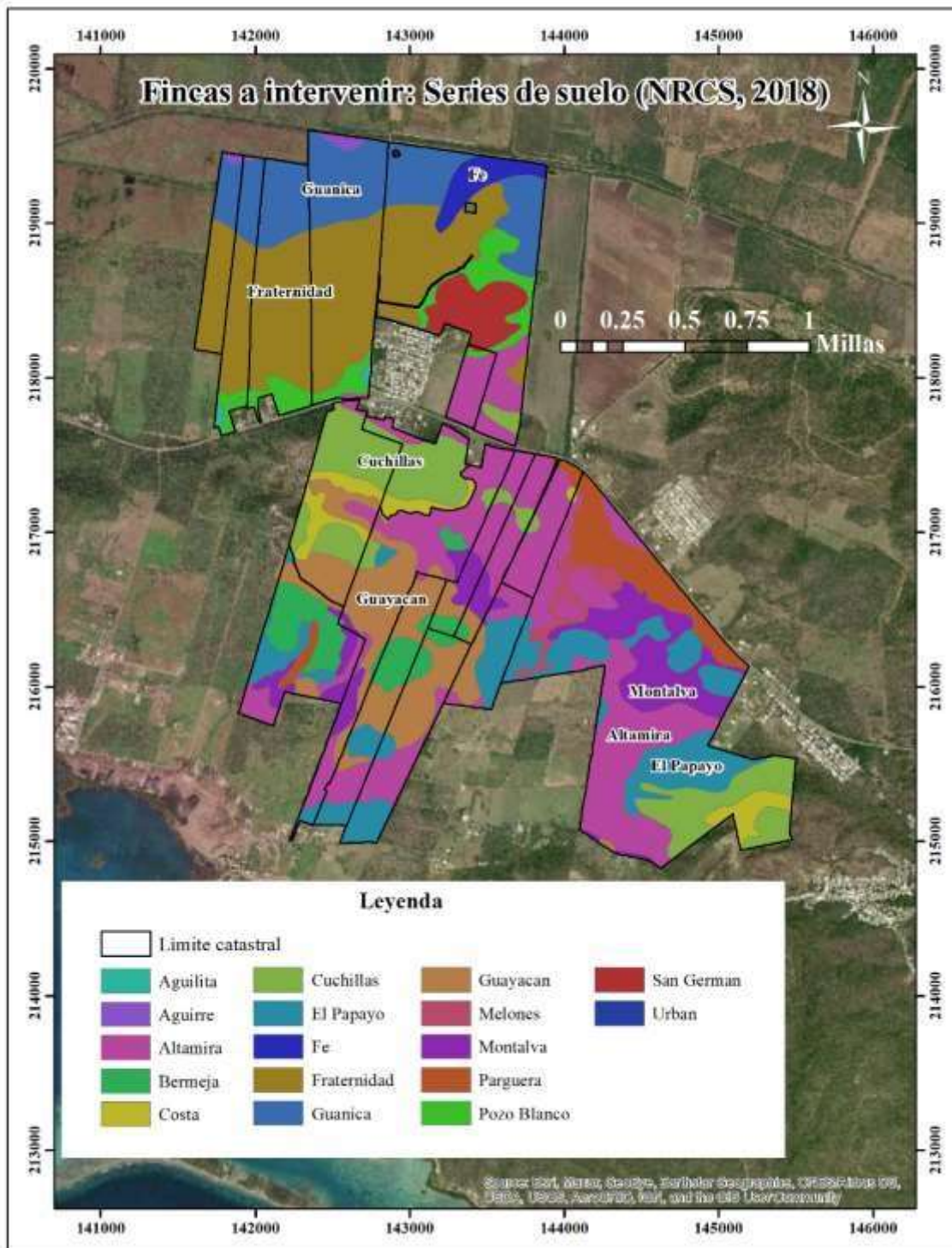


Figura 6. Series de suelos en el área de construcción propuesta.



Sotomayor Ramírez; Impacto de la construcción y operación del proyecto Montalva Solar Farm
Figuras y cuadros del informe

Cuadro 3. Descripción taxonómica y área que ocupan los suelos en el área de construcción propuesta.

Serie	Orden	Suborden	Grupo	Subgrupo	Familia	Área (ha)	Área (%)
Urban	-	-	-	-	-	0.75	0.08
Aguilita	Mollisols	Ustolls	Calciustolls	Aridic Calciustolls	Coarse-loamy, carbonatic, isohyperthermic	1.58	0.16
Aguirre	Vertisols	Aquerts	Epiaquerts	Sodic Epiaquerts	Very-fine, smectitic, isohyperthermic	3.38	0.34
Melones	Vertisols	Torrerts	Calcitorrerts	Chromic Calcitorrerts	Fine, smectitic, isohyperthermic	12.00	1.20
Fe	Vertisols	Usterts	Haplusterts	Sodic Haplusterts	Fine, smectitic, isohyperthermic	13.72	1.37
San German	Mollisols	Ustolls	Haplustolls	Lithic Haplustolls	Clayey-skeletal, mixed, superactive, isohyperthermic	23.10	2.31
Costa	Entisols	Orthents	Torriorthents	Typic Torriorthents	Clayey, carbonatic, isohyperthermic, shallow	25.99	2.60
Pozo Blanco	Mollisols	Ustolls	Calciustolls	Aridic Calciustolls	Fine-loamy, mixed, superactive, isohyperthermic	32.49	3.25
Bermeja	Aridisols	Cambids	Haplocambids	Typic Haplocambids	Loamy, mixed, active, isohyperthermic, shallow	36.89	3.69
Parguera	Aridisols	Argids	Calciargids	Typic Calciargids	Clayey-skeletal, carbonatic, isohyperthermic	37.30	3.73
Montalva	Vertisols	Torrerts	Haplotorrerts	Typic Haplotorrerts	Fine, mixed, superactive, isohyperthermic	65.55	6.56
Cuchillas	Inceptisols	Udepts	Dystrudepts	Typic Dystrudepts	Loamy, mixed, active, isothermic, shallow	93.57	9.37
El Papayo	Aridisols	Cambids	Haplocambids	Typic Haplocambids	Clayey, mixed, superactive, isohyperthermic, shallow	94.22	9.43
Guayacan	Aridisols	Calcids	Haplocalcids	Typic Haplocalcids	Fine-loamy, mixed, superactive, isohyperthermic	94.52	9.46
Guanica	Vertisols	Aquerts	Calciaquerts	Typic Calciaquerts	Fine, smectitic, isohyperthermic	95.81	9.59
Fraternidad	Vertisols	Usterts	Haplusterts	Typic Haplusterts	Fine, smectitic, isohyperthermic	165.77	16.59
Altamira	Aridisols	Calcids	Haplocalcids	Typic Haplocalcids	Coarse-loamy, carbonatic, isohyperthermic	202.38	20.26

Sotomayor Ramírez; Impacto de la construcción y operación del proyecto Montalva Solar Farm
Figuras y cuadros del informe

					Total	999.0	100.0
						2	0

Figura 7. Distribución de área en suelos según Farmland Classification (USDA).

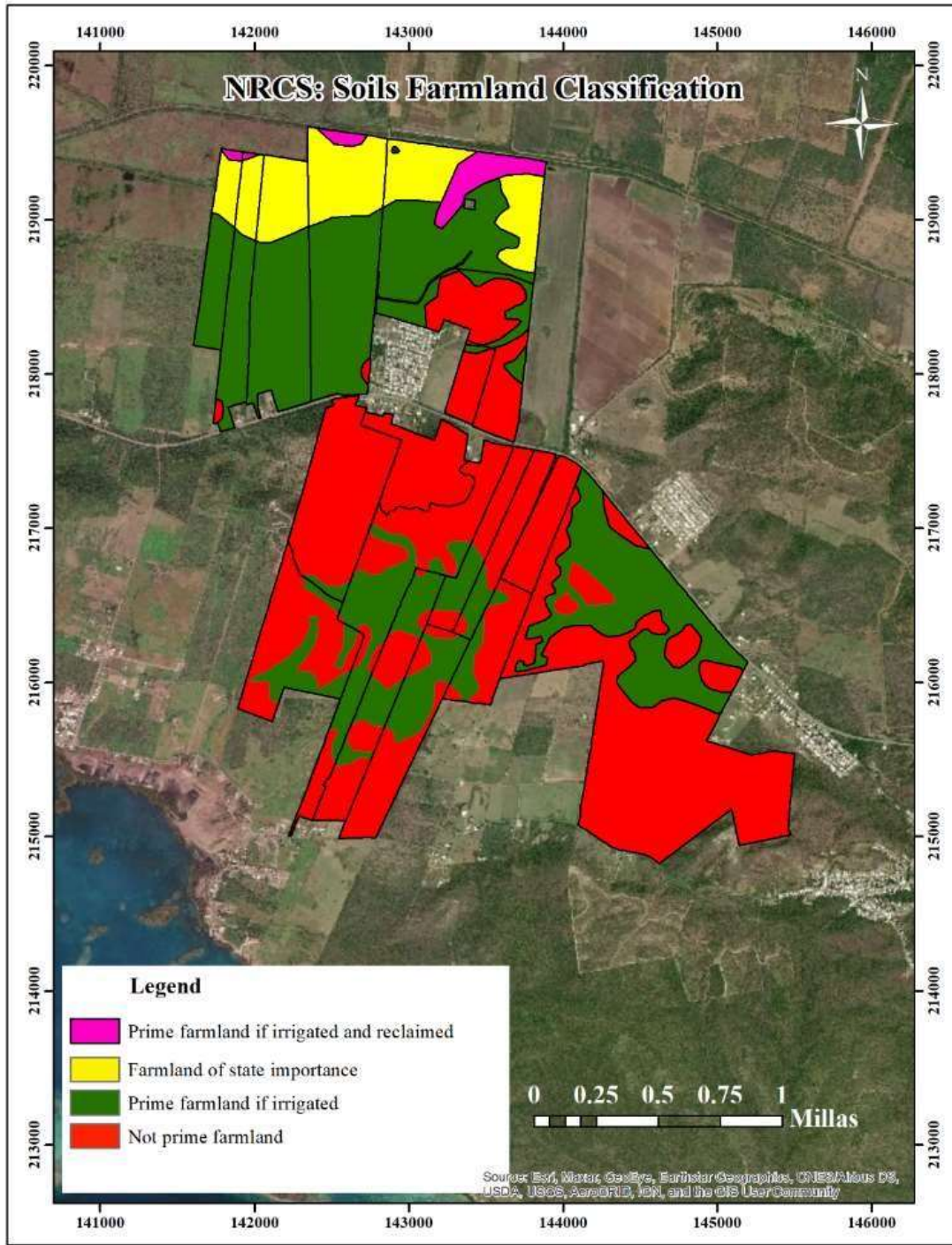


Figura 8. Imágenes satelitales de la zona demostrando la productividad de los suelos en (I) color natural; (II) falso color; (III) NDVI; (IV) humedad del suelo. Las áreas marcadas son: A- Finca Bayer; B – Humedal; C - Área agrícola de alta productividad; D – Área agrícola del Anegado que tiene acumulación transitoria de agua durante eventos de tormenta; E – Área vegetal removida entre julio y agosto 2020.

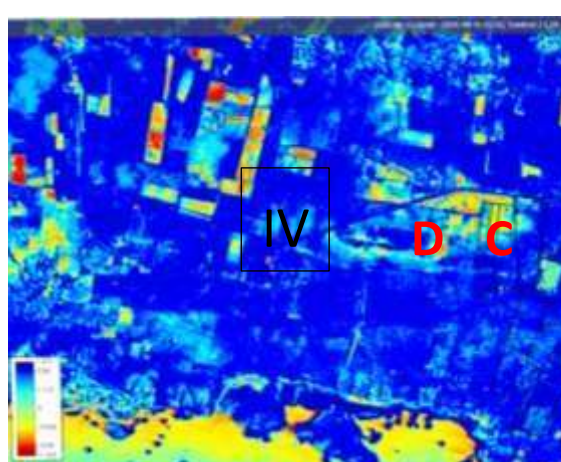
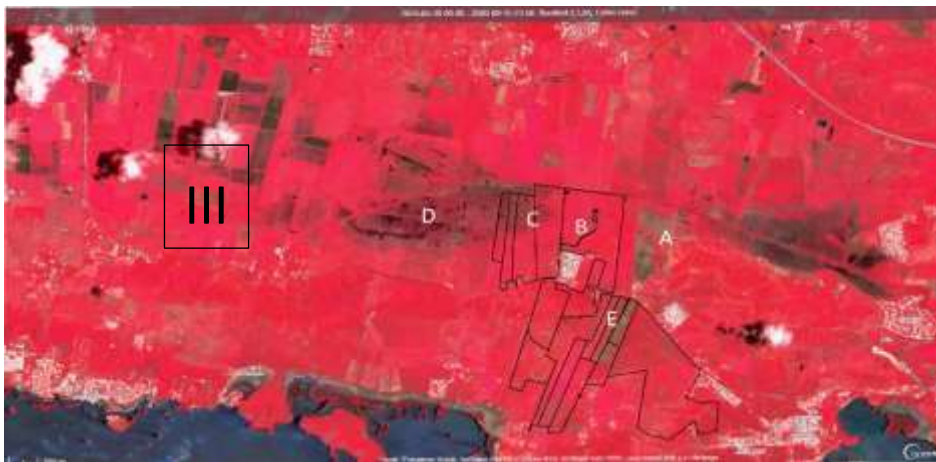


Figura 9. Esquema representativo de áreas de suelo cubierta por los módulos solares, en las facilidades de energía fotovoltaica Isabela.

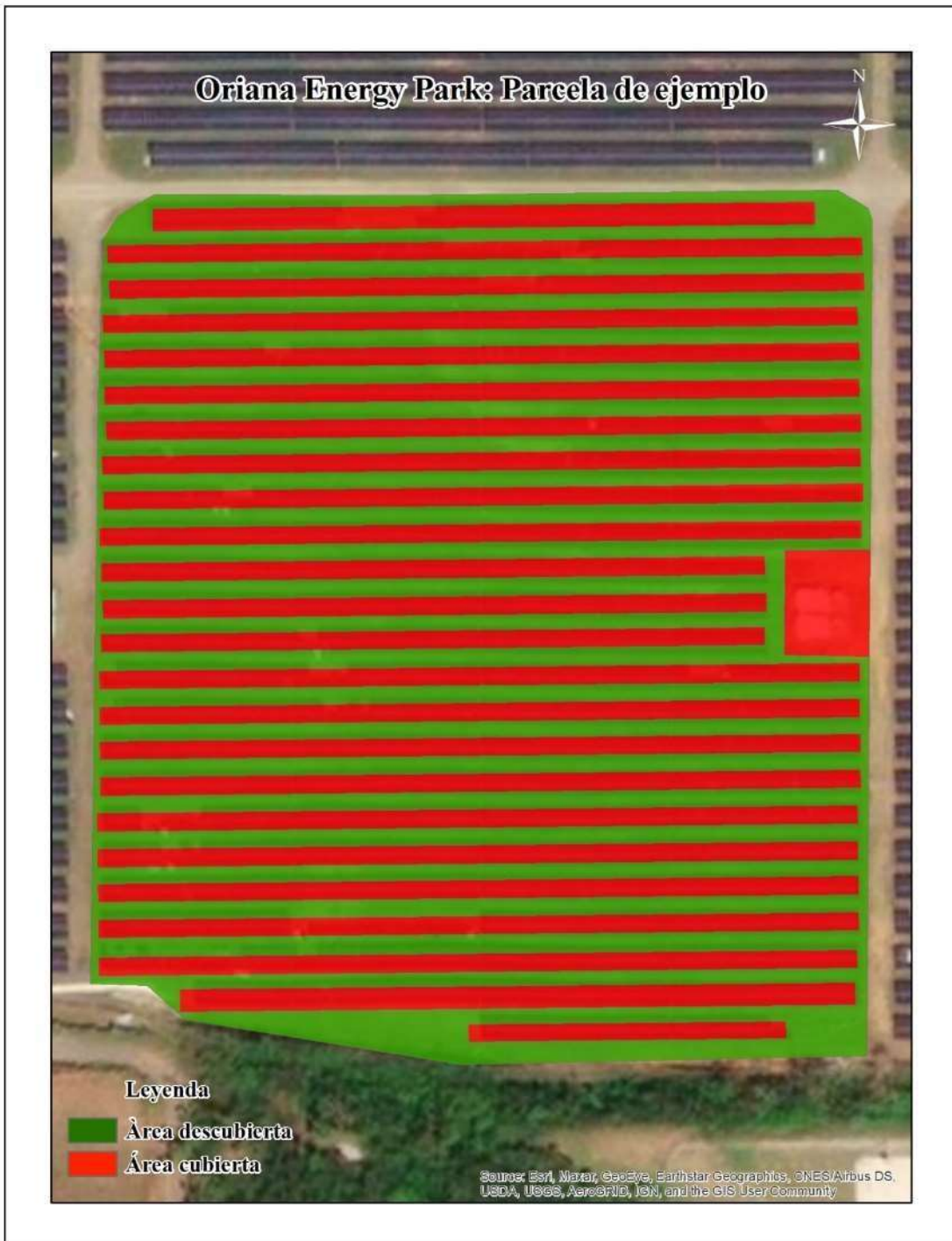


Figura 10. Fincas con acceso a riego.

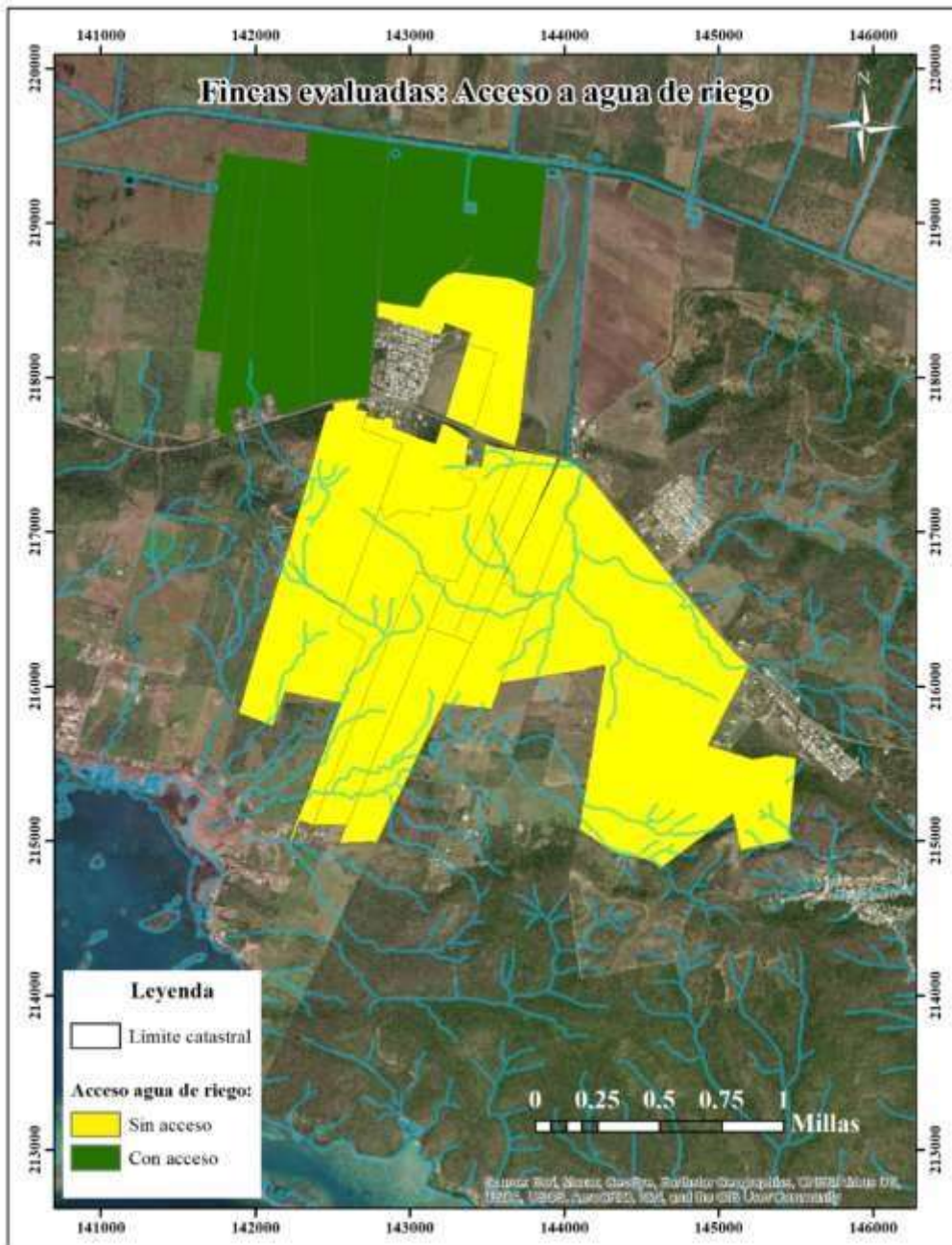
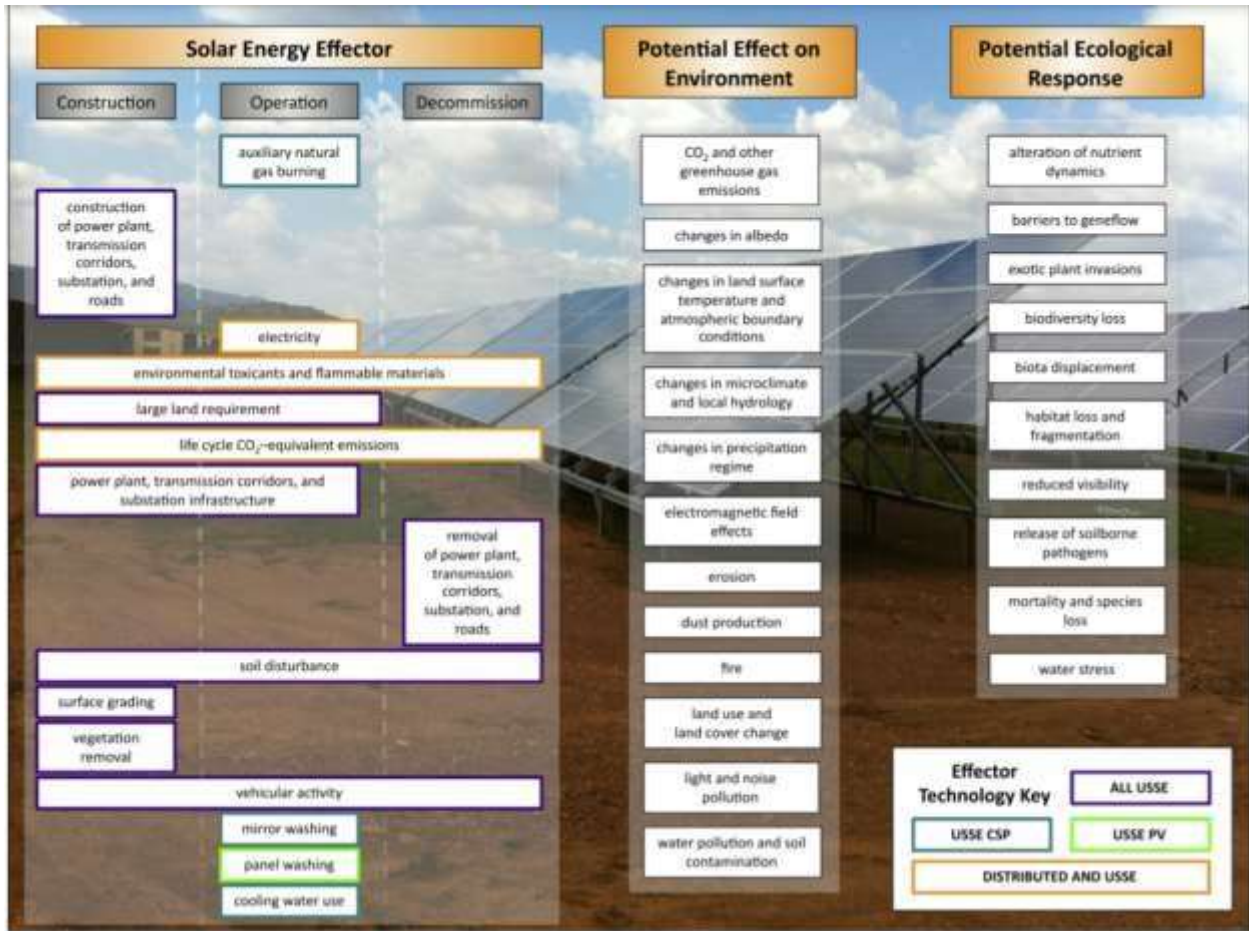


Figura 11. Posibles impactos de las fincas solares sobre el medioambiente (reproducido de Hernandez et al. 2013).



**GOVERNMENT OF PUERTO RICO
PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU**

IN RE:		CASE NO.:
		CEPR-AP-2018-0001
Review of the Puerto Rico Electric Power		
Authority Integrated Resource Plan		

**EXPERT TESTIMONY OF DANIEL GUTMAN
ON BEHALF OF LOCAL ENVIRONMENTAL ORGANIZATIONS**

Comité Diálogo Ambiental, Inc., El Puente de Williamsburg, Inc. -Enlace Latino de Acción Climática, Comité Yabucoño Pro-Calidad de Vida, Inc., Alianza Comunitaria Ambientalista del Sureste, Inc., Sierra Club and its Puerto Rico chapter, Mayagüezanos por la Salud y el Ambiente, Inc., Coalición de Organizaciones Anti-Incineración, Inc., Amigos del Río Guaynabo, Inc., Campamento Contra las Cenizas en Peñuelas, Inc., and CAMBIO Puerto Rico, Inc.

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I. Introduction and Qualifications

Q: Please state your name, position, and business address:

A: My name is Daniel Gutman. I am a consultant in environmental analysis of air pollution. My business address is 407 West 44th Street, New York, New York 10036.

Q: On whose behalf are you testifying in this proceeding?

A: I am testifying on behalf of the following organizations: Comité Diálogo Ambiental, Inc., El Puente de Williamsburg, Inc.- Enlace de Acción Climática, Comité Yabucoeño Pro-Calidad de Vida, Inc., Alianza Comunitaria Ambientalista del Sureste, Inc., Sierra Club, Inc. and its Puerto Rico chapter, Mayagüezanos por la Salud y el Ambiente, Inc., Coalición de Organizaciones Anti Incineración, Inc., Amigos del Río Guaynabo, Inc., Campamento Contra las Cenizas en Peñuelas, 13 Inc. CAMBIO PR, Inc.

Q: Please summarize your qualifications and work experience.

A: In more than a dozen matters, I have provided expert analysis of the harmful impacts of emissions from utility projects on human health. I have testified before administrative agencies as an expert, on behalf of the Environmental Protection Agency (EPA) and local environmental organizations. I hold a Bachelor of Science degree from the Massachusetts Institute of Technology and a Master of Science degree from the University of Illinois. My resume is attached as Exhibit

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A.
Q: What is the scope of your testimony?

A: I have been asked to review the air quality surrounding the major power plants in Puerto Rico and the implications of continued operation of the Puerto Rico Electric Power Authority (PREPA) power plants for air quality and public health.

II. PREPA’s Violations and Health Impacts from Emissions at Puerto Rico’s Fossil

Fuel Power Plants

Q: What are the conclusions of your review?

A: My review indicates that if the current power plant output and fuel type are maintained in the future, then the area surrounding the Puerto Rico Electrical Power Authority (PREPA) power plants at Costa Sur, San Juan, and Aguirre will fail to comply with the Environmental Protection Agency’s (EPA) 2010 sulfur dioxide National Ambient Air Quality Standard (NAAQS). The 2010 NAAQS sulfur dioxide standard was based on new health research that established for the first time a causal relationship between respiratory morbidity and short-term sulfur dioxide concentrations (75 FR 35525). Therefore, my review indicates that continued operation of these plants will cause harmful health impacts to Puerto Ricans living nearby.

Q: Considering the importance of compliance with the 2010 sulfur dioxide standard, what

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are your views for PREPA’s preferred plans in the Integrated Resource Plan (IRP)?

21 **A:** Because of the expense and difficulty of either adding pollution control equipment or cleaner
22 fuel, the best way for Puerto Rico to comply with the 2010 sulfur dioxide standard is for PREPA
23 to move away from generation in fossil fuel power plants and toward generation from non1
polluting sources. PREPA’s preferred plans, the Energy System Modernization Plan (ESM) and
2 Scenario 4, invest too many resources into fossil fuel generation, and not enough in non-polluting 3
sources.

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5 **Q: Please explain the air quality standards that PREPA must meet.**

6 **A:** The Clean Air Act sets up a regulatory framework whose main purpose is protection and
7 enhancement of air quality. To achieve this purpose, the Clean Air Act encompasses broad
8 authority for EPA to evaluate health effects of air pollutants, set ambient air pollution standards,
9 set emission standards for both new and existing equipment, and require states to submit plans
to 10 control air pollutants (or have EPA adopt its own plan).

11 Under §108 of the Clean Air Act, EPA issues “air quality criteria” to control certain air pollutants
12 that are widespread in the human environment, largely because they are emitted whenever fuel is
13 burned. These include sulfur dioxide, carbon monoxide, nitrogen oxides, particulate matter,
14 ozone, and lead. Under §109 of the Clean Air Act, EPA has set National Ambient Air Quality
15 Standards (NAAQS) “requisite to protect the public health” for each of these pollutants, which
16 apply wherever the public is exposed. States submit plans under §110 to achieve NAAQS by dates
17 set by EPA. Plans can include mechanisms such as state regulation of fuel type, required permits

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for major polluters (Clean Air Act, §172), economic incentives, etc. Since ambient concentrations are proportional to emissions, the purpose of the plan is to reduce emissions enough to meet ambient standards. EPA typically helps the states by setting emission standards for equipment, providing research on effectiveness of control techniques, providing guidance on developing a plan, and many other activities.

Q: Why are these air quality standards especially important in Puerto Rico?

A: In 2010, EPA adopted a stricter NAAQS for sulfur dioxide (75 FR 35520). This is particularly relevant in Puerto Rico, where power plants emit significant levels of this toxic chemical- The new standard is primarily designed to limit short-term high concentrations of sulfur dioxide that cause breathing problems. Short-term peaks of sulfur dioxide cause constriction of bronchial passageways and respiratory symptoms in susceptible populations, which include children, older adults, those with pre-existing respiratory disease, those who spend time exercising outdoors, persons of lower socio-economic status, and asthmatic individuals. Notably, the prevalence and severity of asthma is higher among Puerto Ricans (75 FR 35527). The health data, epidemiological, human exposure, and other data on the relationship between short-term sulfur dioxide exposure and adverse respiratory effects is convincing enough for the relationship to be characterized as causal, the “strongest finding” that EPA can make (75 FR 35520 [2010]).

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Q: How does EPA determine compliance with standards in Puerto Rico?

A: EPA set a one-hour limit of 75 ppb (parts per billion) for sulfur dioxide, based on a three-year

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average of the 99th percentile daily maximum sulfur dioxide concentrations in an area. A short term standard at the level adopted by EPA will reduce longer-term sulfur dioxide concentrations as well. Consequently, EPA eliminated its previous 24-hour and yearly average standards at the same time as it adopted a one-hour standard.

EPA recognized that violations of the 2010 sulfur dioxide standard could be expected near large facilities that burn oil or coal and emit more 2,000 tons of sulfur dioxide per year. EPA accordingly determined that areas near those facilities are of special concern. Prior to submitting a plan to meet the 2010 sulfur dioxide standard, air agencies must first determine whether their air is in

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attainment or non-attainment with the standard. While air agencies could characterize their air quality using an existing air quality monitoring network, Puerto Rico’s network apparently does not meet minimum standards for data collection. Consequently Puerto Rico characterized its air primarily using computer modeling, in accordance with EPA regulations (40 CFR §51.1203).

5 **Q: Are PREPA’s power plants in compliance with air quality standards?**

6 **A:** No. In 2016, the Puerto Rico Environmental Quality Board (EQB) found that the areas around
7 four PREPA power plants are likely in violation of the 2010 sulfur dioxide NAAQS—including
8 the Aguirre, Costa Sur, San Juan, and Palo Seco plants. The EQB projections, based on actual
9 sulfur dioxide emissions during the years 2013-15, are shown in the table below.¹⁴⁵

10 Table 1. Summary of the Puerto Rico 1-hour SO₂ Designation Modeling Results, 2016.

Emission Sources with SO ₂ emissions at or above 2,000 tpy	Name of geographical area	Maximum impact area (radius in kilometers)	1-Hour SO ₂ Design Value (µg/m ³)	1-hour SO ₂ NAAQS (µg/m ³)
PREPA Aguirre	Guayama-Salinas	5.4	232	196*
PREPA Costa Sur	Guayanilla	7.0	1,046	
PREPA San Juan	San Juan	3.6	343	
PREPA Palo Seco	San Juan	2.7	207	

11 * For sulfur dioxide, 196 µg/m³ is equivalent to 75 ppb.

¹⁴⁵ Letter from EQB to EPA, December 19, 2016. A true and accurate copy of this letter, with Puerto Rico 1-Hour SO₂ Designation Modeling Results including Appendix A, is attached as Exhibit B.

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12 The EQB is expected to submit to EPA its Implementation Plan for achieving compliance with
13 the 2010 sulfur dioxide standard later this year.¹⁴⁶ PREPA has three difficult options to achieve
14 compliance, if it wishes to keep these plants running:

- 15 • Lower the sulfur content of the oil burned at PREPA’s power plants
- 16 • Install emission control equipment, or
- 17 • Reduce the maximum power generated.

18 **Q: Can control equipment be effectively applied in Puerto Rico?**

19 **A:** A previous study by Puerto Rico’s Intersectoral Committee on Environmental Compliance and
20 Energy Alternatives (ICECEA), convened by the Governor of Puerto Rico, found that three of the
21 four power plants do not have the space for control equipment and that, in any case, the cost of
22 installing and operating the equipment would have the effect of increasing the cost of electricity,
23 making control equipment “not a viable compliance alternative.”¹⁴⁷ The study also determined
24 that using a lower sulfur fuel, for example one containing 0.3% sulfur instead of the current 0.5%
25 sulfur, “is not an option, as it would increase energy costs significantly and would not comply with
26 emission limits for contaminants imposed by new federal regulations.”¹⁴⁸

¹⁴⁶ See “Status of SIP Required Elements for Puerto Rico Designated Areas,” at https://www3.epa.gov/airquality/urbanair/sipstatus/reports/pr_lembypoll.html.

¹⁴⁷ ICECEA, Report on the Necessary Measures to Comply With New EPA Regulations, and the Conversion to, and Use of Natural Gas in, the Northern Power Plants 13, June 15, 2012, <http://www.gdb.pr.gov/documents/FINALInformeCICAAEGobernador-English-firmado.pdf>

¹⁴⁸ *Id.*

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27 According to the ICECEA report:

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As part of our evaluation, both the EQB and PREPA used dispersion models in order to determine the generating units' maximum emission levels. Both agencies agreed that in order to meet NAAQS compliance, [PREPA] must burn liquid fuel with a sulfur content of 0.1 percent per weight or less. This would imply that PREPA would be burning diesel in all of its combustion units. Currently, this fuel is only utilized in the most efficient combined cycle units, since its high cost is not economically feasible for use in other units. Increasing the use of No. 2 diesel fuel in turn increases the cost of fuel purchases.¹⁴⁹

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Furthermore, PREPA's current fuel risks exacerbating its non-compliance with the 2010 sulfur dioxide standard. Two power plants in Puerto Rico, the Aguirre and Palo Seco plants, are operating substantially below capacity, as shown in Table 2. If operations at either plant increase in the future without adding pollution control equipment or reducing the sulfur content of the fuel, sulfur dioxide emissions, and therefore sulfur dioxide concentrations, will increase above those projected in Table 1.

Table 2. Large SO₂ Sources in Puerto Rico.

Emission sources with SO ₂ emissions at or above 2,000 tons/year	Name of geographical area	SO ₂ Emissions (tons/yr)				Average Emissions as % of Allowable
		Allowable*	2013	2014	2015	
PREPA Aguirre	Guayama-Salinas	30,038	9,641	9,261	9,585	32%
PREPA Costa Sur	Guayanilla	11,506	6,975	8,337	9,323	71%

¹⁴⁹ *Id.*

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PREPA San Juan	San Juan	7,787	5,308	5,136	6,064	71%
PREPA Palo Seco	San Juan	17,344	5,701	3,128	2,979	23%

45

* Exhibit B, Puerto Rico 1-Hour SO2 Designation Modeling Results, Appendix A.

46 **Q: What would happen if current emissions levels were maintained?**

47 **A:** If current emission levels are maintained in the future, areas surrounding the Palo Seco plant
 48 will comply with the 2010 sulfur dioxide NAAQS, while areas surrounding the other plants will
 49 continue to be in non-compliance. Modeling results show that the Palo Seco area did comply with
 50 the sulfur dioxide concentration standard in 2014 and 2015, but that the three-year average was
 51 pushed above compliance due to higher plant emissions in 2013, as shown in Table 3. If sulfur
 52 dioxide emissions from Palo Seco are maintained at the 2014-15 level, the surrounding area will
 53 eventually comply with the standard, which is based on a three-year average.

54 Table 3. Puerto Rico 1-hour SO₂ Designation Modeling Results, 2013–15.¹⁵⁰

Emission sources with SO ₂ emissions at or above 2,000 tons/year	Name of geographical area	SO ₂ Concentrations (µg/m ³)			1-hour SO ₂ NAAQS (µg/m ³)
		2013	2014	2015	
PREPA Aguirre	Guayama-Salinas	236	226	233	196*
PREPA Costa Sur	Guayanilla	1,003	1,037	1,098	
PREPA San Juan	San Juan	316	325	387	
PREPA Palo Seco	San Juan	263	172	185	

55 * For sulfur dioxide, 196 µg/m³ is equivalent to 75 ppb.

56 If the current power plant output and fuel type are maintained in the future, then the area
 57 surrounding the PREPA Palo Seco power plant is the only area that can comply with EPA’s 2010
 58 sulfur dioxide NAAQS. Areas surrounding the other major PREPA power plants—Costa Sur, San
 59 Juan, and Aguirre—will not be able to achieve compliance with that important health-based
 60 standard.

¹⁵⁰ Exhibit B, Puerto Rico 1-Hour SO₂ Designation Modeling Results, Appendix A.

1 Because of the expense and difficulty of either adding pollution control equipment or cleaner fuel,
2 the best way for Puerto Rico to comply with the 2010 sulfur dioxide standard is for PREPA to
3 move away from generation in fossil fuel power plants and toward generation from non-polluting
4 sources, as required by the recent Climate Change Mitigation, Adaption and Resiliency Law signed
5 by Governor Ricardo Rosselló.¹⁵¹ The requirements of this law should be reflected in Puerto
6 Rico's forthcoming Implementation Plan for achieving the sulfur dioxide NAAQS.

7

8 **Q: What has been PREPA's history in terms of compliance with sulfur dioxide standards?**

9 **A:** PREPA has a history of poor compliance or non-compliance with federal air and water quality
10 regulations governing its power plants. Prior to 1999, PREPA allowed virtually uncontrolled
11 emissions of sulfur dioxide mist from its power plants, polluting nearby air and creating health
12 problems for nearby residents.¹⁵² A 1999 consent decree between PREPA and EPA, modified in
13 2004, addressed those failures in part by restricting the sulfur content of fuel burned at PREPA's
14 facilities. Subsequent to the consent decree PREPA has apparently engaged in a scheme to falsify 15
15 tests of fuel quality required by the consent decree.¹⁵³

16 Provisions of the consent decree are incorporated into Title V air permits issued by the EQB. In
17 addition to the sulfur content of fuel, these provisions include several aimed at ensuring proper
18 maintenance and optimum operating conditions of the Aguirre power station. Title V of the Clean
19 Air Act was adopted in order to consolidate the issuance and enforcement of permits under the

¹⁵¹ See Governor Ricardo Rosselló Signs Historic Climate Change Bill," May 23, 2019, available at <http://prfaa.pr.gov/governor-ricardo-rossello-signs-historic-climate-change-bill/>.

¹⁵² Mary Williams Walsh, "At Puerto Rico's Power Company, a Recipe for Toxic Air, and Debt," New York Times, February 16, 2016, available at <https://www.nytimes.com/2016/02/16/business/dealbook/at-puerto-ricos-powercompany-a-recipe-for-toxic-air-and-debt.html>.

¹⁵³ *Id.*

20 authority of one agency (42 USC Chapter 85, subchapter V). Given PREPA's previous bad

1 behavior, it is important that one agency, in this case the EQB, has oversight and enforcement
2 authority over all activities covered by the Title V permit, including those provisions added as a
3 result of the 2004 consent decree.

4 In particular, among PREPA's large power plants, PREPA's Aguirre power complex emits the
5 most sulfur dioxide, while the Palo Seco power plant emits the least, as shown in Table 2 above.

6 The area around the Aguirre plant does not comply with the 2010 sulfur dioxide NAAQS, as shown
7 in Table 3, above.¹⁵⁴ Palo Seco is the only plant that could meet the 2010 sulfur dioxide standard
8 while using the current fuel—0.5% sulfur oil. Consequently no modifications should be allowed
9 to PREPA Aguirre's Title V permit that may dilute EQB's enforcement authority, since any such
10 modification could hamper enforcement by EQB and weaken compliance with conditions of the
11 permit, making the existing violation of the 2010 sulfur dioxide NAAQS worse and endangering
12 the health of nearby residents.

13 **Q: What other pollutants are emitted by PREPA's power plants?**

14 **A:** Sulfur dioxide is only one of the pollutants emitted from PREPA's power plants. Emissions of
15 other criteria pollutants are shown in Table 4, below. Of particular concern are emissions of
16 nitrogen oxides, which contribute to formation of ozone (80 FR 65292 [2015]). and emissions of
17 particulate matter—PM₁₀ and PM_{2.5}—which exacerbate asthma symptoms and adversely impact
18 respiratory function, especially of children, in the short term and increase death rates, especially
19 of the elderly, in the long term (78 FR 3085 [2013]).

¹⁵⁴ The PREPA Aguirre Power Complex also does not comply with its Clean Water Act (CWA) permit. See <https://echo.epa.gov/detailed-facility-report?fid=110000307800#pane3110000307800>.

20 Table 4. Criteria Pollutants Emitted by PREPA Power Plants in 2014 (tons/year).¹⁵⁵

Emissions Source	Carbon Monoxide	Nitrogen Oxides	PM 10	PM 2.5	Sulfur Dioxide	VOC
PREPA Aguirre 6	287,086	698,519	9,264	95		
PREPA Costa Su	3278,897	8766778,336	30			
PREPA San Jua n	1,0704,087	4682824,903	40			
PREPA Palo Sec o	2082,407	2301673,125	32			

21
 22 A review of monitoring data that the EQB submits to EPA shows that EQB’s monitoring program
 23 is substandard. Most EQB monitors fail to collect sufficient data to even determine whether areas
 24 of Puerto Rico meet federal air quality standards. Sometimes when EQB monitors do collect
 25 sufficient data, they show what should be violations of the federal standard. For example, in 2016,
 26 EQB ozone monitors showed violations of the federal one-hour ozone standard in Bayamón,
 27 Cataño, and Juncos municipalities. Unfortunately EPA revoked the one-hour ozone standard in
 28 1997 believing that a new, lower 8-hour standard would protect against both short-term (1–3
 29 hours) and medium-term (6–8 hours) exposures (62 FR 38856 [1997]). In Puerto Rico this appears
 30 not to have been the case. Consequently, emissions of nitrogen oxides from PREPA’s fossil fuel
 31 power plants continue to pose a health hazard for island residents.

32 **Q: What emissions are the comparable emissions for the AES Puerto Rico and**
 33 **EcoElectrica power plants?**

34 **A:** Emissions for the AES and EcoElectrica power plants are shown in the Table 5.

35 Table 5. Criteria Pollutants Emitted by Other Power Plants in 2014 (tons/year).¹⁵⁶

¹⁵⁵ EPA, Enforcement and Compliance History Online (ECHO) Air Pollutant Reports, available at <https://echo.epa.gov/>.

¹⁵⁶ EPA, Enforcement and Compliance History Online (ECHO) Air Pollutant Reports, available at <https://echo.epa.gov/> and EPA emission factors, AP-42, at <https://www.epa.gov/air-emissions-factors-andquantification/ap-42-compilation-air-emissions-factors>.

Emission Source	Carbon Monoxide	Nitrogen Oxides	PM 10	PM 2.5	Sulfur Dioxide	VOC
AES Puerto Rico	861	1,729	402	100	245	7
EcoElectrica, L.P.	204	311	49	49	0	7

36 **Q: Does this conclude your testimony?**

37 **A: Yes.**

CERTIFICATION

I, Daniel Gutman, CERTIFY that the contents of my testimony are known to me and are the truth according to the best of my abilities and reasonable knowledge. The technical and operational aspects included in the testimony are based on information that has been gathered in good faith; but I cannot guarantee the truthfulness of information gathered from third parties.

Daniel Gutman

Daniel Gutman, M.S.

Before me, the undersigned Notary Public, personally appeared Daniel Gutman, who acknowledges that the above is true this day of October 23, 2019 in New York, NY.

Personally known OR

Identification Document provided Driver's License

JONATHAN JAMES SMITH
NOTARY PUBLIC-STATE OF NEW YORK
NO. 02SM6335228
QUALIFIED IN NEW YORK COUNTY
MY COMMISSION EXPIRES 01/01/2020

Public

Notary

Name, Signature, Seal

Jonathan James Smith
New York City, NY

Apostille

(Convention de La Haye du 5 Octobre 1961)

- 1 Country: United States of America
This public document
2 has been signed by **Milton Adair Tingling**
3 acting in the capacity of **County Clerk**
4 bears the seal/stamp of the **county of New York**

Certified

- 5 at New York City, New York 6. the 23rd day of October 2019
7 by Deputy Secretary of State for Business and Licensing Services, State of New York
8 No. NYC-1357280
9 Seal/Stamp 10. Signature



Whitney A. Clark

Whitney A. Clark

Deputy Secretary of State for Business and Licensing Services

State of New York }
County of New York } ss:

No. 618501

I, **Milton Adair Tingling**, Clerk of the County of New York, and Clerk of the Supreme Court in and for said county, the same being a court of record having a seal, **DO HEREBY CERTIFY THAT**

JONATHAN JAMES SMITH

whose name is subscribed to the annexed original instrument has been commissioned and qualified as a NOTARY PUBLIC, and has filed his/her original signature in this office and that he/she was at the time of taking such proof or acknowledgment or oath duly authorized by the laws of the State of New York to take the same; that he/she is well acquainted with the handwriting of such public officer or has compared the signature on the certificate of proof or acknowledgment or oath with the original signature filed in his/her office by such public officer and he/she believes that the signature on the original instrument is genuine.



IN WITNESS WHEREOF, I have hereunto set my hand and my official seal this 23rd day of October, 2019

Milton Adair Tingling
County Clerk, New York County



Daniel Gutman
407 West 44th Street
New York, New York 10036 212
586-3888

Education:

Massachusetts Institute of Technology
Cambridge, Massachusetts

B.S., Physics
June, 1964

University of Illinois
Urbana, Illinois

M.S., Physics
February, 1966

Summary of Consulting Experience:

Environmental Protection Agency

Chief analyst for the United States Environmental Protection Agency on traffic and environmental impacts of Westway, a highway proposed for Manhattan. Responsible for preparing cross-examination of State Department of Transportation witnesses and for developing and presenting EPA's direct testimony during administrative hearings.

Environmental Defense Fund
Scenic Hudson

Analyzed the local impact of increased sulfur dioxide emissions due to the proposed conversion to high sulfur coal of Orange and Rockland's Lovett and Danskammer, and the conversion to coal of Con Edison's Arthur Kill and Ravenswood power plants for presentation at administrative hearings.

The Municipal Art Society
STAND

The ATURA Coalition
Committee to Preserve Brighton Beach and
Manhattan Beach

Conducted traffic and air pollution analyses of several major development projects in New York City, including the Coliseum Redevelopment, Metrotech, Atlantic Terminal, and Brighton Beach projects.

Union of Concerned Scientists

Analyzed the potential for accidental releases of radioactive gases reaching New York City from the nearby Indian Point nuclear reactor.

Environmental Defense Fund

Natural Resources Defense Council

Provided technical analysis and evaluations of EPA regulations concerning all sulfur dioxide emitting facilities, as well as those specifically applying to copper smelters.

Association to Save the Hutch

Montgomery Township, New Jersey
Elizabeth and East Brunswick, New Jersey

Provided analyses of the air pollution and traffic impacts of the proposed expansions of the Hutchinson River Parkway, Route US 206 through Montgomery Township, and the New Jersey Turnpike.

Port Authority of New York and New Jersey

Evaluated the impacts of diesel particulates and carbon monoxide due to a proposed busway connecting the Holland and Lincoln tunnels just outside New York City.

Environmental Defense Fund

Investigated the environmental impacts of both toxic and non-toxic emissions from wasteto-energy resource recovery plant proposed for New York City for presentation at administrative hearing.

Citizens for Westpride

Analyzed traffic, air pollution, noise, sewage disposal, and zoning and density with respect to both a massive development proposed by the Trump Organization for a disused rail yard on the West Side of Manhattan, and a number of other projects in the immediate area.

The Parks Council

The Municipal Art Society
The Regional Plan Association

Devised a smaller-scale, more civic-minded alternative to the Trump project, based on relocating a portion of the West Side Highway in order to extend Riverside Park. Evaluated the air pollution and noise impacts of the relocated West Side Highway and investigated various noise control techniques. Known as Riverside South, this alternative was ultimately embraced by the developer and approved by the City.

The Municipal Art Society

Beekman Hill Association

Studied potential air pollution impacts of Con Edison's Waterside power plant in New York City on a proposed very tall, nearby building.

Environmental Defense

New York Lawyers for the Public Interest

Analyzed air quality impacts of diesel emissions from a proposed waste transfer station on nearby residential areas as part of an administrative hearing. Developed legal and technical arguments to require an air quality analysis of fine particulate matter (PM 2.5).

East River Environmental Coalition

Manhattan Community Board #3

In connection with an application by Con Edison to add two electric and steam generators to the East River power plant, analyzed air quality impacts, focussing on fine particulate matter, evaluated noise impacts, helped develop alternative proposals, analyzed the air quality and land-use impacts of the alternatives, and represented client groups in administrative hearings.

Natural Resources Defense Council

Coalition Helping Organize a Kleaner Environment

Borough President of Queens, New York

In connection with applications by Keyspan, SCS Astoria, Orion Power, and the New York Power Authority to add power plants in the Astoria section of New York City, analyzed air quality impacts, focussing on fine particulate matter, analyzed the air quality impacts of the alternatives, and represented client groups in administrative hearings.

Adirondack Communities Advisory League

Presented testimony in administrative hearings regarding impacts of toxic air emissions from a proposed landfill in Ava, New York.

Greenpoint/Williamsburg Waterfront Task Force

Borough President of Brooklyn, New York

In connection with an application by TransGas Energy to add power plants in the Greenpoint/Williamsburg section of New York City, analyzed air quality impacts, focussing on fine particulate matter, analyzed the air quality impacts of the alternatives, and represented client groups in administrative hearings.

Hell's Kitchen Neighborhood Association

Prepared a major zoning and land use plan for the West Side of Manhattan between 30th and 42nd streets as an alternative to City-sponsored plan.



December 19th 2016

MRS. JUDITH A. ENCK
REGIONAL ADMINISTRATOR
USEPA -REGION 2
290 BROADWAY
NEW YORK NY 10007-1866

Dear Mrs. Enck:

PUERTO RICO'S MODELING RESULTS FOR THE 2010 PRIMARY S02 NAAQS RECOMMENDATION FOR NON-ATTAINMENT AREAS DESIGNATION

As required by Title 40 of the Code of Federal Regulations, Section 51.1203(d)(3), Air Agencies shall conduct and submit to the EPA Regional Office the Modeling Analysis for Emission Sources with S0₂ emissions on or above 2,000 tons per year (tpy), for its associate area and nearby area. Air Agencies shall conduct and submit Modeling Analysis on or before January 13th 2017.

PREQB performed a 1-hour S0₂ Designation Modeling Analysis for the following geographical areas of the Commonwealth of Puerto Rico: Guayama-Salinas, Guayanilla and San Juan. Table 1 summarizes Modeling Results.

Table 1. Summary of the Puerto Rico 1-hour S0₂ Designation Modeling Results.

Emission Sources with S0₂ emissions on or above 2,000 tpy	Name of Geographical area	Maximum impact area (radius in kilometers)	1-Hour S0₂ Design Value (µg/m³)	1-hour S0₂ NAAQS (µg/m³)
PREPA Aguirre	Guayama-Salinas	5.	23	19
PREPA Costa Sur	Guayanilla	7.	1,046	
PREPA San Juan	San Juan	3.	34	196
PREPA Palo Seco	San Juan	2.	20	

According to the modeling results, the S0₂ emissions of the four facilities included in the study do not comply with the 1-hour S0₂ NAAQS of 196 µg/m³.

Environmental Agencies Building
San Jose Industrial Park
137 Ponce de Le6n Ave.
PO Box 11488 San Juan, PR 00910
Tel. 787-767-8056 fax 787-767-4861
www.jca.pr.gov



Puerto Rico's Modeling Results for the 2010 Primary S02 NAAQS
Recommendation for Non-Attainment Areas Designation
Page 2

Based on the Modeling Results, PREQB recommends to EPA the designation of Guayama-Salinas, Guayanilla and San Juan as Non-Attainment Areas for the 1-hour S02 NAAQS, and the designation of Unclassified/Attainment Area for the remaining geographical areas of the Commonwealth of Puerto Rico.

If you have any question, please, feel free to contact the PREQB's Air Quality Manager at (787)767-8181 x-3269 , or Mrs. Lucia Fernandez, Chief of the Air Monitoring, Validation & Data Management Division at (787)767-8181 x-3254.

~~Cordially,~~



Weldin Ortiz-Franco
Chairman

Enclosure: *Puerto Rico 1-hour S02 Designation Modeling Results*

- c Mr. John Filippelli, CASO Director
- Mr. Richard Ruvo, EPA Air Program Branch Director
- Mrs. Carmen Guerrero, CEPD Director



PUERTO RICO 1-HOUR SO₂ DESIGNATION MODELING RESULTS

PUERTO RICO ENVIRONMENTAL QUALITY BOARD
AIR MONITORING, VALIDATION & DATA MANAGEMENT

SEPTEMBER 2016

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.... 19 List of Acronyms

DRR	Data Requirements Rule
NAAQS	National Ambient Air Quality Standards
SO ₂	Sulfur Dioxide
PPB	Parts Per Billion
EPA	Environmental Protection Agency
EQB	Environmental Quality Board
PREPA	Puerto Rico Power Electric Authority
SO2TAD	SO ₂ NAAQS Designations Modeling Technical Assistance Document

Introduction

This document presents the modeling results for the designation of the 2010 1-hour SO₂ NAAQS in Puerto Rico. In June 2010, the EPA promulgated the new 1-hour primary SO₂ NAAQS of 75 parts per billion (ppb), which is met at an ambient air quality monitoring site, when the 3-year average of the 99th percentile of 1-hour daily maximum concentrations does not exceed 75 ppb.

According to the 40 CFR Part 51, Data Requirements Rule (DRR)¹⁵⁷ for the 2010 1-hour SO₂ Primary NAAQS signed on August 10 2015, EPA is promulgating a rule directing state and tribal air agencies to provide data to characterize current air quality areas with large sources of SO₂ emissions (2,000 tons per year or more) to identify maximum 1-hour SO₂ concentrations in ambient air. The final rule set a process and timetable for agencies to either establish ambient monitoring sites or conduct air quality modeling and submit the air quality data to EPA.

On January 2016, EQB submitted EPA a list of the sources with SO₂ emissions over 2000 tons/yr. EQB determined three areas in Puerto Rico that have SO₂ sources with emissions over 2,000 tons/yr. The areas are San Juan, Guayama-Salinas and Guayanilla. The sources in San Juan area with SO₂ emissions over 2,000 tons/yr are PREPA San Juan and PREPA Palo Seco. In GuayamaSalinas area is PREPA Aguirre and in Guayanilla is PREPA Costa Sur.

EQB decided to characterize the air quality in the areas with SO₂ emissions sources over 2,000 tons/yr with dispersion modeling. The air quality model for the analysis is AERMOD, with three years of meteorological data and three years of actual SO₂ emissions, as recommended in the SO₂ NAAQS Designations Modeling Technical Assistance Document (SO₂TAD)². On July 2016, EQB submitted to EPA the Puerto Rico 1-Hour SO₂ Designation Modeling Protocol¹⁵⁸ for its revision and approval. After that, EQB started the modeling process for the 1-hour SO₂ standard designation.

Emission Inventory

The emission inventory used for the study was three years of SO₂ actual emissions data, from the years 2013 to 2015. EQB followed the recommendation in the SO₂TAD of using the three most recent available years of SO₂ actual emissions. EQB used the SO₂ actual emissions certified data, submitted annually by PREPA.

This report is revised by the Inspection and Compliance Division of the Air Quality Area, to determine conformity with the air quality permit and regulations.

¹⁵⁷ Data Requirements Rule for 2010 1-Hour Sulfur Dioxide (SO₂) Primary National Ambient Air Quality Standard (NAAQS). 40 CFR Part 51. ² SO₂ NAAQS Designations Modeling Technical Assistance Document, USEPA. August, 2016.

¹⁵⁸ Puerto Rico 1-Hour SO₂ Designation Modeling Protocol. Environmental Quality Board. Air Quality Area. July, 2016.

Designation Modeling Results

The PREPA emission report presents the annual SO₂ actual emissions for the emission points of PREPA facility. For a complete information about the emission inventory, please refer to the modeling protocol document. A copy of the emission inventory table is in Appendix A.

Background Concentration

For the 1- hour SO₂ background concentration, EQB used the less conservative “first tier” approach recommended in the SO₂TAD of the 1- hour SO₂ background concentration based on the monitored design value for the most recent 3-year period, regardless of the years of meteorological data used in the modeling. EQB have SO₂ air quality monitors in the vicinity of San Juan area, but are source oriented, for that reason they are not representative of the nearby sources impacts.

EQB determined more adequate use a regional site monitor that is impacted by similar natural and distant man-made sources. EQB selected the data from the Guayama SO₂ monitor to be used as background concentration for San Juan area. This background concentration is from the years 2010-2012 and also will be used in Guayama-Salinas and Guayanilla area. The concentration background is the most recent 3-year period design value for 1- hour SO₂ and the value is 58 µg/m³ (22 ppb).

This background concentration will be used in Guayanilla because EQB does not have a SO₂ monitor in this municipality and the most representative air quality monitor for the area is the Guayama monitor. This background concentration is not source oriented and is impacted by similar natural and distant man-made sources. The concentration background data is in Appendix B.

Model

The model used for the SO₂ designation modeling is AERMOD. This model is the preferred recommended by EPA for air quality modeling studies. The version used is the most recent or 15181. The default options will be selected for each run. The urban option will be used in San Juan because the facilities are in an urban environment.

The input data for PREPA emission points is for the EQB emission inventory and the SO₂ actual emissions is from the PREPA annual emission reports. The emission sources inside the facilities are point sources (boilers and gas turbines) and actual stack height data will be used. The parameters for each emission point source and their coordinates were from the information provided by the facilities in their construction permits.

The AERMOD model output options MAXDAILY, MAXDCONT and MXDYBYR output options will be selected to calculate the model 1-hour SO₂ design value. Background concentration¹⁵⁹ will be added to

¹⁵⁹ See Air Quality Monitoring Design Value Report in Appendix B.

the 1-hour SO₂ model design value for the comparison with the NAAQS.

Meteorology

The SO₂TAD recommends the most recent three years of meteorological data for the designation modeling, to allow the modeling to simulate a monitor. The SO₂TAD also recommends that the meteorological data will be concurrent with the years of the actual SO₂ emissions used in the designation modeling. EQB will use three years of site-specific data, in the three areas of the designation modeling.

The three years of meteorological data are not concurrent with the three years of SO₂ actual emissions data, but EQB addressed this using the recommendation in the Section 7.4 Use of Older Meteorological Data¹⁶⁰ of the SO₂TAD. The three years data periods were manually changed (change of the year on AERMET output files) as if these were the 2013 to 2015 data period.

The meteorology for the San Juan model is from the years 2007-2009, in Guayama-Salinas the meteorological data is from 2001-2003 and in Guayanilla is from 1991-1993. All this data was collected on-site. Full meteorological reports with the methodology used to process the data are available in the modeling protocol document⁶.

Receptors

Two receptor grids were used in each run of the 1-hour SO₂ designation model. The receptor grids considered populated areas and places where is feasible to place an air quality monitor. Discrete receptors across the facility fenceline were used in all modeling cases.

The first receptor grid is a 250 meters of space to determine the facility maximum impact radius. This is an exclusionary grid used to determine where is the SO₂ maximum impact. A refined grid of 50 meter of space was used in the area of maximum impact concentrations, to determine compliance with the 1- hour SO₂ NAAQS. Discrete receptors were placed at the facility fenceline in all modeling runs. For complete information about the receptor grids, please refer to the modeling protocol document.

Model Results

The model results for the four emission sources in the modeling study are presented below. The 1hour SO₂ NAAQS is represented by the model design value, which is calculated using the three years average of the 4th highest of the daily maximum. EQB used the following methodology to determine the SO₂ design

¹⁶⁰ Section 7.4: Use of Older Meteorological Data. SO₂ NAAQS Designations Modeling Technical Assistance Document, USEPA. August, 2016. ⁶

Puerto Rico 1-Hour SO₂ Designation Modeling Protocol. Environmental Quality Board. Air Quality Area. July, 2016.

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value for each emission source in the study.

Separate modeling runs for each facility by year of meteorological and actual emissions data were performed to determine the SO₂ 4th highest of the daily maximum by year. The modeling runs for each facility have the same receptor network and emission point parameters data, the only data that changes in each run is the SO₂ actual emissions and the concurrent meteorological data.

For each modeling run, the 4th highest value was determined using the MAXDAILY file. The SO₂ design value for each facility in the study is the three years average of the 4th highest. The SO₂ background concentration was added to this design value.

EQB used separate model runs because the receptor networks are extensive and this complicate the evaluation of the output files. The MAXDCONT file was used to determine the contribution of each facility emission point to the design value. Modeling runs output files are in the Appendix C and electronic copies of the MAXDAILY, MAXDCONT and MXDYBYR files will be provided. The SO₂ designation modeling results are presented below.

A. PREPA San Juan

The model results for PREPA San Juan are presented in the next tables. The 1-hour SO₂ design value is above the NAAQS of 75 ppb or 196 µg/m³. The maximum results impact area is approximately 3.6 km radius. The 4th highest for each modeling run, plus the background concentration and the SO₂ design value for PREPA San Juan are presented in Table 1. The Table 2 presents the modeling results by emission point or MAXDCONT output file data.

Table 1: PREPA San Juan 1-Hour SO₂ Modeling Results

Year	Coordinates (m)		SO ₂ Concentrations µg/m ³			
	East	North	4 th Highest Model Result	Background Concentration	Total Concentration	1-Hour SO ₂ Design Value
2013	805450	2039622	258	58	316	343
2014	805550	2038922	267		325	
2015	805550	2038922	329		387	

Table 2: PREPA San Juan 1-Hour SO₂ Modeling Results by Emission Point

Year	4 th Highest SO ₂ Model Concentrations µg/m ³						Background Concentration	Total Concentration
	SJ5/6	Boiler7	Boiler8	Boiler 9	Boiler10			
2013	0.89787	64.81184	52.32642	66.97350	72.74486	58	315.75449	
2014	0.21331	88.40702	108.53339	53.99018	15.75475		324.89865	

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Designation Modeling Results

2015	0.33223	99.65805	82.97753	144.13036	2.33466		387.43283
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The modeling scenario with the highest SO₂ concentrations was 2015 and therefore have the maximum impact area with a radius of 4.1 km. The maximum impact area for 2013 and 2014 was approximately 3.4 km radius. The Figures 1-3 showed the modeling results isopleths and the 1-hour SO₂ 4th highest concentration by year of data.

Figure 1: PREPA San Juan 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2013



Figure 2: PREPA San Juan 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2014



Figure 3: PREPA San Juan 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2015



B. PREPA Palo Seco

The model results for PREPA Palo Seco are presented in the following tables. The 1-hour SO₂ design value is above the NAAQS of 75 ppb or 196 µg/m³. The maximum results impact area is approximately 2.7 km radius. The 4th highest for each modeling run, plus the background concentration and the 1-hour SO₂ design value for PREPA San Juan are presented in Table 3. The Table 4 presents the modeling results by emission point or the MAXDCONT output file data.

Table 3: PREPA Palo Seco 1-Hour SO₂ Modeling Results

Year	Coordinates (m)		SO ₂ Concentrations µg/m ³			
	East	North	4 th Highest Model Result	Background Concentration	Total Concentration	1-Hour SO ₂ Design Value
2013	800700	2043072	205	58	263	207
2014	800700	2043072	114		172	
2015	801550	2042022	127		185	

The SO₂ modeling results for 2013 data are over de 1-hour SO₂ NAAQS, the other years are below the standard. The three years average of the 4th highest is above the 1-hour SO₂ NAAQS. The next table presents the modeling results by the emission points of PREPA Palo Seco.

Table 4: PREPA Palo Seco 1-Hour SO₂ Modeling Results by Emission Point

Year	4 th Highest SO ₂ Model Concentrations µg/m ³
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	PS1	PS2	PS3	PS4	GT1	GT2	GT3	Background Concentration	Total Concentration
2013	38.50191	32.42061	29.33763	104.71084	0.00286	0.00532	0.00407	58	262.98324
2014	30.88408	34.61644	0.000	48.33751	0.03621	0.07657	0.07159		172.0224
2015	43.25716	47.47828	27.54117	8.59734	0.00056	0.09414	0.07945		185.0481

The modeling results for year 2013 were the highest and the maximum impact area have approximately 2.7 km radius. The modeling results for 2014 and 2015 were below the 1-hour SO₂ NAAQS. Figures 4-6 showed the modeling results isopleths and the 1-hour SO₂ 4th highest concentration by year of data.

Figure 4: PREPA Palo Seco 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2013

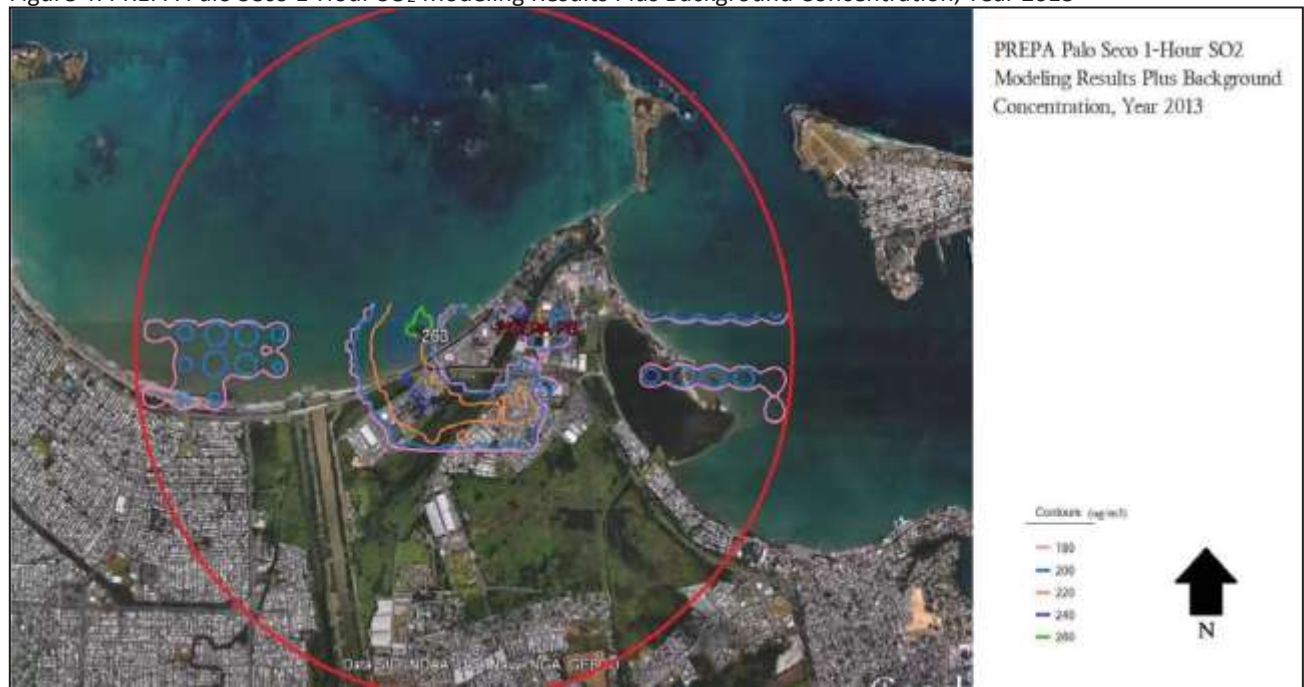


Figure 5: PREPA Palo Seco 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2014

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Figure 6: PREPA Palo Seco 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2015



C. PREPA Aguirre

The following tables presents the model results for PREPA Aguirre. The 1-hour SO₂ design value is above the NAAQS of 75 ppb or 196 µg/m³. The 4th highest for each modeling run, plus the background

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concentration and the SO₂ design value for PREPA Aguirre are presented in Table 5. The Table 6 presents the modeling results by emission point or MAXDCONT output file data.

Table 5: PREPA Aguirre 1-Hour SO₂ Modeling Results

Year	Coordinates (m)		SO ₂ Concentrations µg/m ³			
	East	North	4 th Highest Model Result	Background Concentration	Total Concentration	1-Hour SO ₂ Design Value
2013	792100	1988250	178	58	236	232
2014	790750	1988000	168		226	
2015	791500	1986500	175		233	

The SO₂ modeling results for PREPA Aguirre are over de 1-hour SO₂ NAAQS. The three years average of the 4th highest is 232 ug/m³ and is above the 1-hour SO₂ NAAQS. The next table presents the modeling results by each emission point of PREPA Aguirre.

Table 6: PREPA Aguirre 1-Hour SO₂ Modeling Results by Emission Point

Year	4 th Highest SO ₂ Model Concentrations µg/m ³						Total Concentration
	AG1	AG2	CC1	CC2	AGGT	Background Concentration	
2013	92.42972	85.24826	0.08780	0.21629	0.00038	58	235.98245
2014	60.94587	106.07054	0.25548	0.35438	0.00489		225.63116
2015	81.81814	91.93863	0.76722	0.49448	0.02302		233.04149

The modeling results for year 2013 were the highest and the maximum impact area extends approximately 5.4 km from the source. The modeling results for 2014 and 2015 were also above the 1-hour SO₂ NAAQS and the maximum impact areas extends from the source, 5 and 4.7 km, respectively. Figures 7-9 showed the modeling results isopleths and the 1-hour SO₂ 4th highest concentration by year of data.

Figure 7: PREPA Aguirre 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2013

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Figure 8: PREPA Aguirre 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2014



Figure 9: PREPA Aguirre 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2015

Designation Modeling Results



D. PREPA Costa Sur

The following tables presents the model results for PREPA Costa Sur. The 1-hour SO₂ design value is above the NAAQS of 75 ppb or 196 µg/m³. The 4th highest for each modeling run, plus the background concentration and the SO₂ design value for PREPA Costa Sur are presented in Table 7. The Table 8 presents the modeling results by emission point or MAXDCONT output file data.

Table 7: PREPA Costa Sur 1-Hour SO₂ Modeling Results

Year	Coordinates (m)		SO ₂ Concentrations µg/m ³			
	East	North	4 th Highest Model Result	Background Concentration	Total Concentration	1-Hour SO ₂ Design Value
2013	738250	1994900	945	58	1003	1046
2014	735250	1994800	979		1037	
2015	737400	1995750	1040		1098	

The SO₂ modeling results for PREPA Costa Sur are over de 1-hour SO₂ NAAQS. The three years average of the 4th highest is 1046 µg/m³ and is above the 1-hour SO₂ NAAQS. The next table presents the modeling results by emission point of PREPA Costa Sur.

Table 8: PREPA Costa Sur 1-Hour SO₂ Modeling Results by Emission Point

Year	4 th Highest SO ₂ Model Concentrations µg/m ³
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	SC3	SC4	SC5	SC6	PB1	Background Concentration	Total Concentration
2013	3.74367	0.99801	303.53343	636.15715	0.10537	58	1002.53763
2014	0.0	0.0	515.76028	463.07010	0.00757		1036.83795
2015	17.03536	1.70005	511.64441	509.33306	0.00074		1097.71362

The modeling results for year 2015 were the highest and the maximum impact area extends approximately 7 km from the source. The modeling results for 2014 and 2015 were also above the 1-hour SO₂ NAAQS and the maximum impact areas extension from the source were also 7 km. Figures 10-12 showed the modeling results isopleths and the 1-hour SO₂ 4th highest concentration by year of data.

Figure 10: PREPA Costa Sur 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2013



Figure 11: PREPA Costa Sur 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2014

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Designation Modeling Results

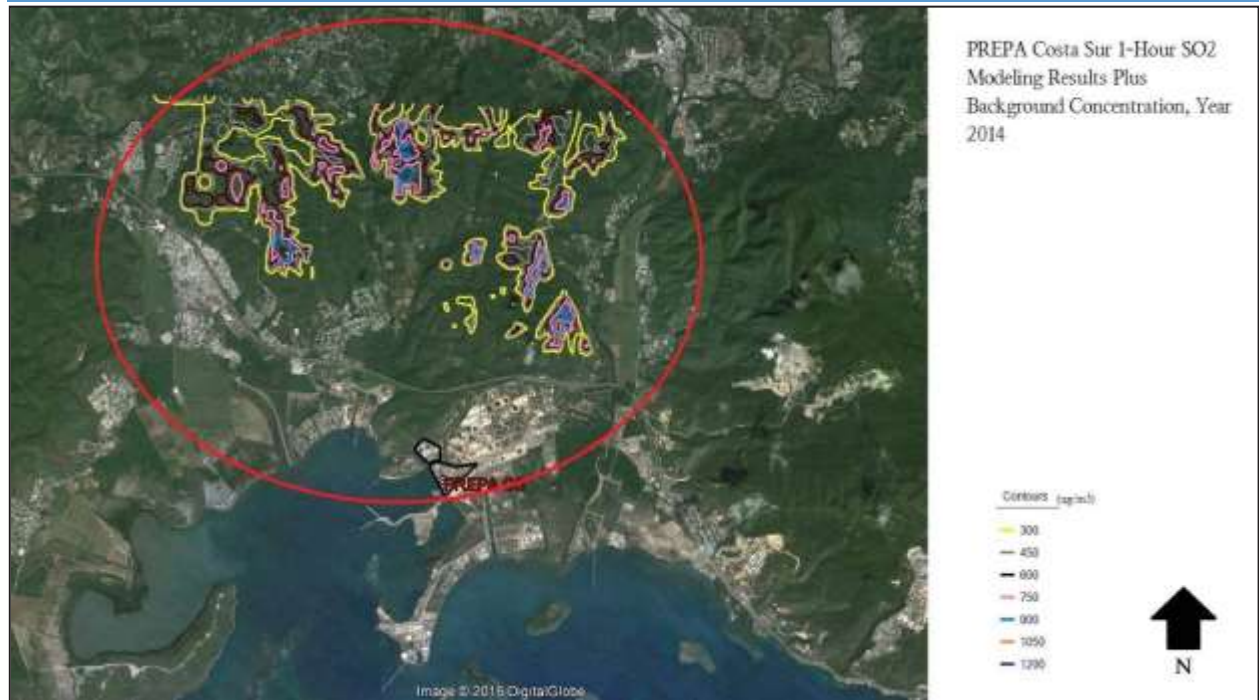
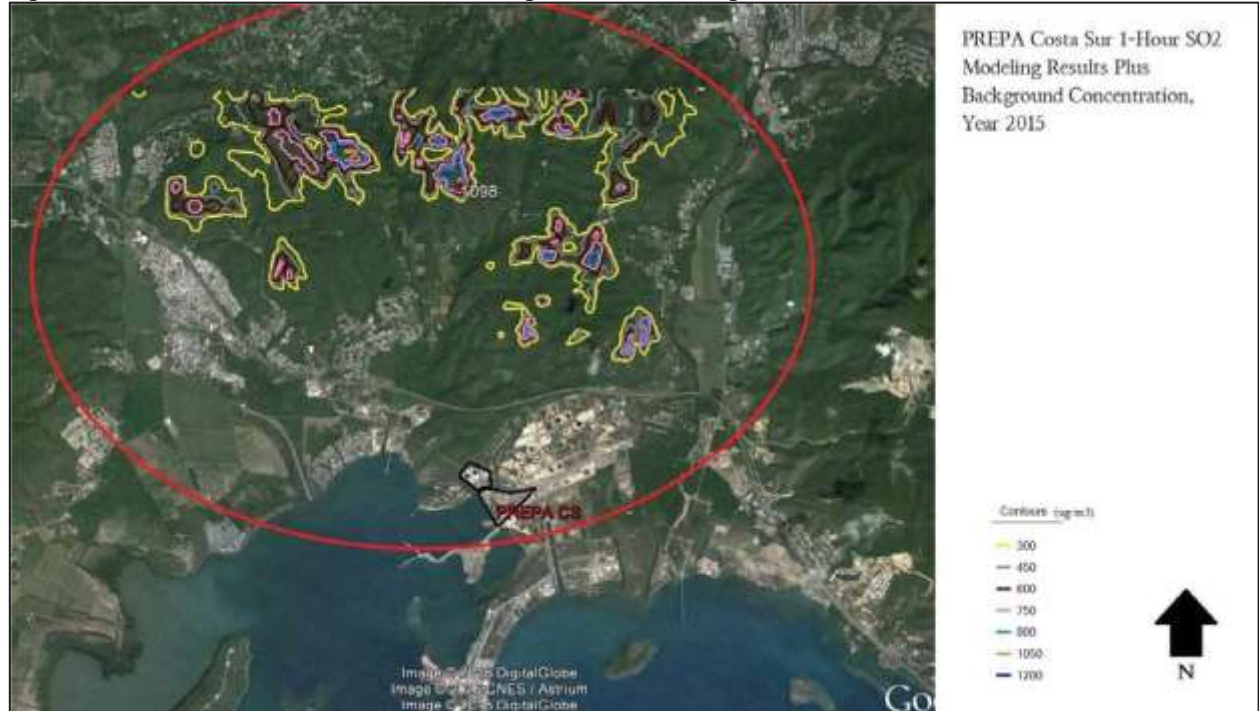


Figure 12: PREPA Costa Sur 1-Hour SO₂ Modeling Results Plus Background Concentration, Year 2015



Conclusion

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Designation Modeling Results

According to the modeling results, the SO₂ emissions of the four facilities in the study do not comply with the 1-hour SO₂ NAAQS of 196 µg/m³. The facility with the highest results was PREPA Costa Sur in Guayanilla, with the 1-hour SO₂ design value of 1046 µg/m³. The facility with the lowest results was PREPA Palo Seco in San Juan area, with the 1-hour SO₂ design value of 207 µg/m³. The model concentration results in all the areas under the study are above the 1-hour SO₂ NAAQS of 196 µg/m³.

- I. APPENDIX A: Emission Inventory for the 1-Hour SO₂ Designation Model

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APPENDIX A: Emission Inventory for the 1-Hour SO₂ Designation Model

Emission Inventory for the 1-Hour SO₂ Designation Model

PRRPA Palo Seco															
Emission Unit	Address Physical/Postal	Municipality	SCC	Model Point ID	UTM		Control Equipment	Control Efficiency %	Actual Emissions (ton/yr)			Stack Height (m)	Stack Diameter (m)	Stack Exit Velocity (m/s)	Stack Temperature (K)
					East	North			2013	2014	2015				
Boiler 304			2-02-001-01	556	82592	204123			301.46	209.2	301.3	83.0	5	20.2	422
Boiler 7	Merced Chemical Zone Cruel Ave. P.R. 31, San Juan		1-02-004-04	BOLEERT	84971	200156			118.6	146.8	1487.31	42.4	1.8	21.03	404.14
Boiler 8	PRV306 34207 San Juan, PR 00954-207	San Juan	1-02-004-04	BOLE836	84991	200156	NA	NA	93.8	367	1169.00	51.5	1.8	21.03	404.14
Boiler 9			1-02-004-04	BOLE839	84932	200065			119.8	123.0	2917.30	44.2	1.8	20.46	404.14
Boiler 10			1-02-004-04	BOLE830	84913	200064			149.2	48	514.0	44.2	1.8	20.46	404.14
Total									5307.65	5355.78	6064.91				
PRRPA Palo Seco															
Emission Unit	Address Physical/Postal	Municipality	SCC	Model Point ID	UTM		Control Equipment	Control Efficiency %	Actual Emissions (ton/yr)			Stack Height (m)	Stack Diameter (m)	Stack Exit Velocity (m/s)	Stack Temperature (K)
					East	North			2013	2014	2015				
Boiler 1			1-02-004-04	P1	80204	204349			3025.90	673.46	1022.66	93.4	2.4	27.46	410
Boiler 2			1-02-004-04	P2	80116	204349			854.15	897.15	1177.73	53.3	2.5	27.46	410
Boiler 3	East 106 Km 11, Turbay, P.R.		1-02-004-04	P3	81106	204349			823.80	0.00	629.08	64.3	2.4	26.6	420
Boiler 4	Bo 94207 San Juan, PR 00919	San Juan	1-02-004-04	P4	80036	204349	NA	NA	3093.00	1414.00	2033.00	64.5	2.8	26.6	420
Boiler 1			2-02-001-01	P0201	80007	204354			419	1.50	0.02	2.2	2.9	14.59	76
Boiler 2			2-02-001-01	P0202	80087	204354			0.38	4.82	3.48	12	2.9	14.59	76
Boiler 3			2-02-001-01	P0203	80067	204354			0.1	4.07	3.08	12	2.9	14.59	76
Total									5708.68	3128.02	2919.30				
PRRPA Caguas Sur															
Emission Unit	Address Physical/Postal	Municipality	SCC	Model Point ID	UTM		Control Equipment	Control Efficiency %	Actual Emissions (ton/yr)			Stack Height (m)	Stack Diameter (m)	Stack Exit Velocity (m/s)	Stack Temperature (K)
					East	North			2013	2014	2015				
Boiler A61			1-01-004-04	A61	79372	198786			4992	7813	4471.31	75.4	2.5	38.6	422
Boiler A62			1-01-004-04	A62	79423	198786			4633	3989	5023.10	75.4	2.5	38.6	422
Gas Turbine CCI-1 & CCI-4	East 106 Km 11.1, Turbay, P.R. 34207 San Juan, PR 00919-4307	San Juan	2-02-001-01	CC1	79125	198665	NA	NA	641	14.3	0.3	17.8	2.4	40.3	491
Gas Turbine CCI-1 & CCI-4			2-02-001-01	CC2	79326	198622			1051	36.3	3.4	17.8	2.4	40.3	491
ASGT 1-1-2			2-02-001-01	ASGT	79381	198727			1.03	0.54	1.80	12.2	2.9	40.9	77
Total									9640.951	9284.154	9286.22				
PRRPA Caguas Sur															
Emission Unit	Address Physical/Postal	Municipality	SCC	Model Point ID	UTM		Control Equipment	Control Efficiency %	Actual Emissions (ton/yr)			Stack Height (m)	Stack Diameter (m)	Stack Exit Velocity (m/s)	Stack Temperature (K)
					East	North			2013	2014	2015				
Boiler SC-1			1-01-004-04	SC1	75713	199427			467	0	258.66	62.8	2.2	31.2	410
Boiler SC-4			1-01-004-04	SC4	75713	199427			1231	0	36.56	62.8	2.2	31.2	410
Boiler SC-5	East 107, Avenida P.R. Bar 340281 Caguas, PR 00604-5281	Caguas	1-01-004-04	SC5	75743	199749	NA	NA	2183.72	4827.95	4333	75.9	3.2	30.8	422
Boiler SC-4			1-01-004-04	SC4	75786	199719			4724.30	1953.46	4615.14	75.4	3.2	30.8	422
Power Block 1			2-02-001-01	PB1	71998	199488			1.31	0.11	0.11	12	2.9	40.9	77
Total									6975.3	8386.54	9121.01				

Deficiencias en el análisis de los impactos geológicos encontrados en la Declaración de Impacto Ambiental del proyecto “Montalva Solar Farm – Guánica – Lajas” (Borrador – DIA)

Preparado por el Dr. José Molinelli Freytes, geomorfólogo

El propósito de este escrito es presentar la opinión pericial del Dr. José Molinelli Freytes en torno a las serias deficiencias que presenta el análisis geológico del “Borrador de la Declaración de Impacto Ambiental – Montalva Solar Farm – Guánica – Lajas”.

Uno de los elementos fundamentales que debe incluir una DIA es la evaluación detallada de los impactos que tendrán las acciones propuestas en el ambiente natural y antropogénico así como el impacto de dichos ambientes en el proyecto mismo. La evaluación debe considerar éstos impactos recíprocos a corto, mediano y largo plazo.

Primero se presentarán las deficiencias, en la información geológica, que contiene la DIA, y se enfatiza el que solo se presenta información muy limitada y de carácter descriptivo. Tampoco considera las implicaciones que pueda tener dicha geología en el proyecto. Luego se consideran las deficiencias que presenta el mapa geológico, que al excluir la geología que circunda el proyecto, lo considera como un sistema aislado que no interactúa con el ambiente geológico aledaño.

En segundo término se aborda la ausencia total de un análisis comprensivo de los peligros geológicos inducidos por terremoto en el área propuesta. A pesar de que el proyecto propuesto está en el margen, tectónicamente activo, de la micro-placa en que está Puerto Rico, no se hace mención alguna del peligro sísmico y el riesgo significativo que presenta para el proyecto. Se establecen las bases para demostrar la necesidad crítica de evaluar el riesgo sísmico identificando las principales zonas sismogénicas en la región de Puerto Rico, las fallas activas que discurren por la zona del proyecto y el incremento en el riesgo sísmico como consecuencia de los eventos que han estado ocurriendo en el suroeste de Puerto Rico desde diciembre de 2019.

Deficiencias en la información geológica que presenta la DIA.

Con respecto a las deficiencias en la información geológica cabe destacar el que no se presentan, discuten, o analizan los impactos del proyecto en el ambiente geológico ni el impacto de los procesos geológicos, que a pesar de iniciarse fuera de los límites físicos del proyecto, pueden impactarlo significativamente.

Estos incluyen la erosión acelerada, las escorrentías, los movimientos de masa incluyendo flujos de tierra, deslizamientos y despeños así como la actividad sísmica y los peligros geológicos inducidos por terremotos.

Para comenzar, en la DIA se incluyen solo dos páginas, la 31 y 32, con información meramente descriptiva, con segmentos mal traducidos del idioma inglés, proveniente de los mapas geológicos del USGS. Esta traducción hace incomprensibles segmentos completos de la narrativa descriptiva de la geología del proyecto.

Se trata la geología como si el área del proyecto fuera un sistema aislado del resto del ambiente. Presenta un mapa geológico que solamente muestra la geología del área específica de las fincas en que estará enclavado el proyecto. Esto impide examinar como los cambios en la continuidad geológica pueden impactar el proyecto así como evaluar sus consecuencias e impactos en el sentido más amplio.

Específicamente impide comprender y analizar cartográficamente el contexto geológico del proyecto y evaluar el impacto, que las áreas aledañas a las fincas puedan tener en el proyecto propuesto. Por ejemplo, puede haber procesos geológicos que se originen fuera del área del proyecto que impacten significativamente el mismo. Este sería el caso de movimientos de masa incluyendo despeños, flujos detríticos, flujos de tierra y deslizamientos de diverso tipo además de erosión acelerada, cambios hidrológicos y otros que pueden originarse fuera del proyecto pero que pueden impactarlo.

Una de las deficiencias mayores es la ausencia crasa de un análisis de las consecuencias que puede tener la geología y los procesos geológicos en el proyecto. Una DIA debe analizar las implicaciones de la geología que se describe en los mapas geológicos en el contexto del proyecto que en este caso es de la Finca Solar de Montalva. Por ejemplo, a continuación se presentan las descripciones de las cuatro formaciones y/o depósitos geológicos identificados dentro del proyecto según aparecen en las páginas 31 y 32.

"Las siguientes formaciones geológicas están presentes en el predio (véase Figura 7." "Formaciones Geológicas): Kpa, Caliza Parquera: De edad cretáceo superior, consiste en caliza, volcánica y volcanoclásticas relacionadas."

El limitarse a copiar información de los mapas geológicos de forma muy resumida, sin interpretarla, en cuanto a lo que significa dentro del contexto del proyecto de la Finca Solar, no contribuye al logro de los objetivos y metas de la DIA. ¿Qué significa en términos del proyecto la presencia de la "caliza Parquera y el que esté relacionada a rocas volcánicas y volcanoclásticas? ¿Presenta rasgos de la topografía cárstica? ¿Hay depresiones cerradas que afecten el drenaje y la dirección de las escorrentías pluviales?

"Kpob, Basalto Olivino: Flujos gruesos de lava masiva acolchonada de color oscuro-verdoso- grisácea que contienen plagioclase, clinopiroxeno y ortopiroxeno."

¿Qué significa en términos del proyecto la presencia de "almohadillas lávicas basálticas (incorrectamente traducidas como "acolchonadas") con las mineralizaciones indicadas? ¿Puede presentar limitaciones para las

excavaciones o cimentaciones? ¿Cuán meteorizada están y cuáles son sus implicaciones dentro del proyecto?

“Qa, Aluvión, Depósitos Cuaternarios: Valle de relleno y depósitos de flujos en masa relacionados con los episodios de precipitación intensa. Arenas poco consolidadas y sedimentos asociados a los sistemas de drenaje activos y pendientes de las colinas.”

El aluvión Cuaternario ocupa la mayor parte del proyecto. ¿Qué implicaciones tiene para el proyecto de placas solares el que se ubique en un “valle de relleno” que al presente está recibiendo sedimentos de las áreas colindantes? ¿Cuál ha sido la magnitud y frecuencia de estos eventos considerando las lluvias más intensas y la precipitación máxima probable durante la vida útil del proyecto? ¿Qué implicaciones tienen los “sistemas de drenaje activos” que desaguan directamente en el área del proyecto? ¿Por qué no se incluyeron en el mapa geológico las áreas colindantes al proyecto si tienen un efecto directo en él? ¿A qué profundidad está el nivel freático en los terrenos aluviales, cuánto fluctúa durante el año hidrológico, cuáles son sus niveles máximos y mínimos y qué implicaciones tiene para el proyecto? ¿Cuál es el espesor o grosor del depósito aluvial y cuál es su potencial de amplificación de ondas sísmicas? ¿Hay lentes de arena con potencial de licuación?

“Tjd, Formación Juana Díaz: Se compone de arenisca conglomerática, conglomerados, arenita lítica calcárea y caliza en menor proporción; de estratos medianos a maciza con un espesor mayor a los 300 metros. La mayor parte del área del proyecto está compuesta por la formación geológica Qa.”

¿Qué significa en términos del proyecto la presencia de la “Formación Juana Díaz” y el que consista de arenisca, conglomerados y caliza? ¿Presenta rasgos de la topografía cárstica con cavidades por disolución? ¿Hay depresiones cerradas que afecten el drenaje y la dirección de las escorrentías pluviales?

Estás son solo algunas de las consideraciones geológicas que debieron ser analizadas en la DIA en lugar de meramente copiar y pegar la información de un mapa geológico sin sentido analítico alguno por lo que no cumple con el propósito esencial de una DIA. En otras palabras una DIA es un instrumento de análisis del impacto ambiental de un proyecto y del ambiente en el proyecto y no la recopilación de información que no se analiza dentro del contexto del proyecto.

Consideraciones en torno al peligro de terremoto en el área del proyecto.

Es inaudito que el borrador de la DIA del proyecto “Montalva Solar Farm – Guánica – Lajas” que conlleva una inversión ascendente a unos 250 millones de dólares no considere el peligro sísmico que amenaza a dicho proyecto ni su impacto en el área que dependerá de la energía que éste produzca.

A continuación se expondrá la importancia de analizar el contexto sísmico, los peligros geológicos inducidos por terremoto que pueden impactar al proyecto y los asuntos que deben ser considerados, analizados y discutidos en la DIA incluyendo las serias limitaciones que presenta dicha amenaza en la ubicación propuesta para dicho proyecto.

A nivel macro. Puerto Rico y las Isla Vírgenes constituyen un bloque tectónico complejo que actúa como una micro-placa que yace entre la placa del Caribe y la placa de América del Norte. Esta se mueve esencialmente hacia el este a una razón promedio de dos centímetros al año.

Mientras tanto la placa de América del Norte se mueve hacia el oeste rozándose con la microplaca de PR y las Islas Vírgenes. Dicho margen está dominado por procesos de subducción oblicua, a medida que va adentrándose hacia el manto terrestre a lo largo del sistema de la trinchera de Puerto Rico. La convergencia de dicha placa bajo Puerto Rico alcanza uno 160 kilómetros de profundidad y es la causante de sismos de foco llano e intermedio en la región de Puerto Rico.

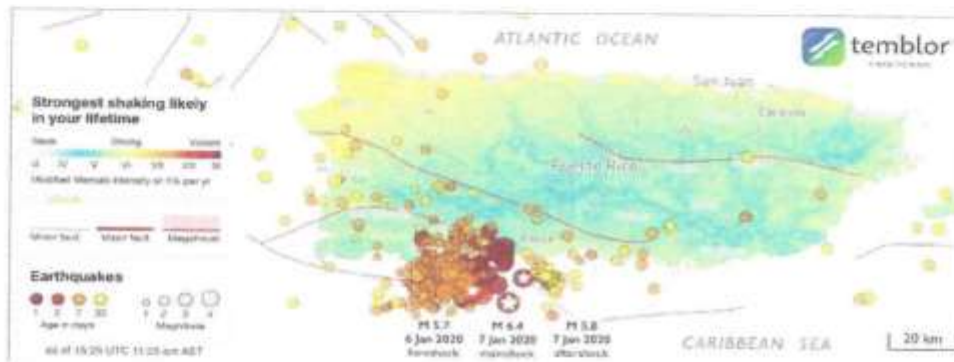
En esta zona sismogénica ocurrió el sismo de 2 de mayo de 1787 que pudo haber alcanzado una magnitud de unos 8 grados en la escala Richter siendo dicho evento el de mayor magnitud que se ha documentado en la historia de Puerto Rico. Afectó fuertemente la porción septentrional de Puerto Rico quebrando porciones de las murallas del Castillo San Felipe del Morro y San Cristóbal. En la región sur también se sintió muy fuerte afectando la iglesia de la Guadalupe en Ponce.

Al oeste de Puerto Rico, un sistema de fallas discurre hacia el sur de la trinchera pasando por el Cañón de la Mona. Éste constituye una fosa tectónica, producto de fuerzas tensionales creada por el movimiento diferencial entre las placas. Dicho movimiento crea un efecto rotacional, "en contra de las manecillas del reloj", en la microplaca de Puerto Rico y las Isla Vírgenes. Fue en el Cañón de la Mona el epicentro del terremoto de San Fermín el 11 de octubre de 1918 que tuvo una magnitud aproximada de 7.3 grados. Vino acompañado de un tsunami que causó la muerte a más de 40 personas y se sintió muy fuerte en la región oeste incluyendo el área de Lajas y Guánica donde se sintieron intensidades de VII en la es la Rossi-Forel.

Específicamente la región suroeste ha estado muy activa desde hace décadas. En el 1987 un sismo de 4.8 grados quebró las columnas cortas de la Escuela Superior de Boquerón que acababa de ser construida al igual que la Segunda Unidad Llanos Tuna del mismo área. Numerosas viviendas sufrieron daños estructurales en paredes y columnas. La actividad sísmica con foco muy cerca de la superficie estuvo asociada a la falla de Boquerón que discurre por el sur del Valle de Lajas y que está asociada al sistema de la falla de Punta Montalva en Guánica donde ha ocurrido una porción significativa de la actividad sísmica que sigue impactando el área desde fines de diciembre de 2019.

Miles de sismos han ocurrido en los municipios costeros desde Cabo Rojo hasta Juana Díaz desde fines de diciembre de 2019. El área del proyecto entre Guánica y Lajas fueron impactadas significativamente. Los eventos sísmicos más significativos ocurrieron el 29 de diciembre con magnitud de 5.0, el de 5.7 del día de Reyes que causó el colapso de numerosas casas construidas sobre columnas particularmente en el área de Guánica y el de la madrugada del 7 de enero que alcanzó una magnitud de 6.4 y que vino acompañado de una réplica de 5.8.

El siguiente mapa proveniente del escrito titulado "La secuencia sísmica del invierno de 2019 -2020 en PR que ha mantenido a la población en alerta" preparado por A.M. López, K.S.Hughes y E. Vanacore fue publicado en el portal "temblor". Muestra la ubicación de los principales sismos que han ocurridos a principios del año en curso.

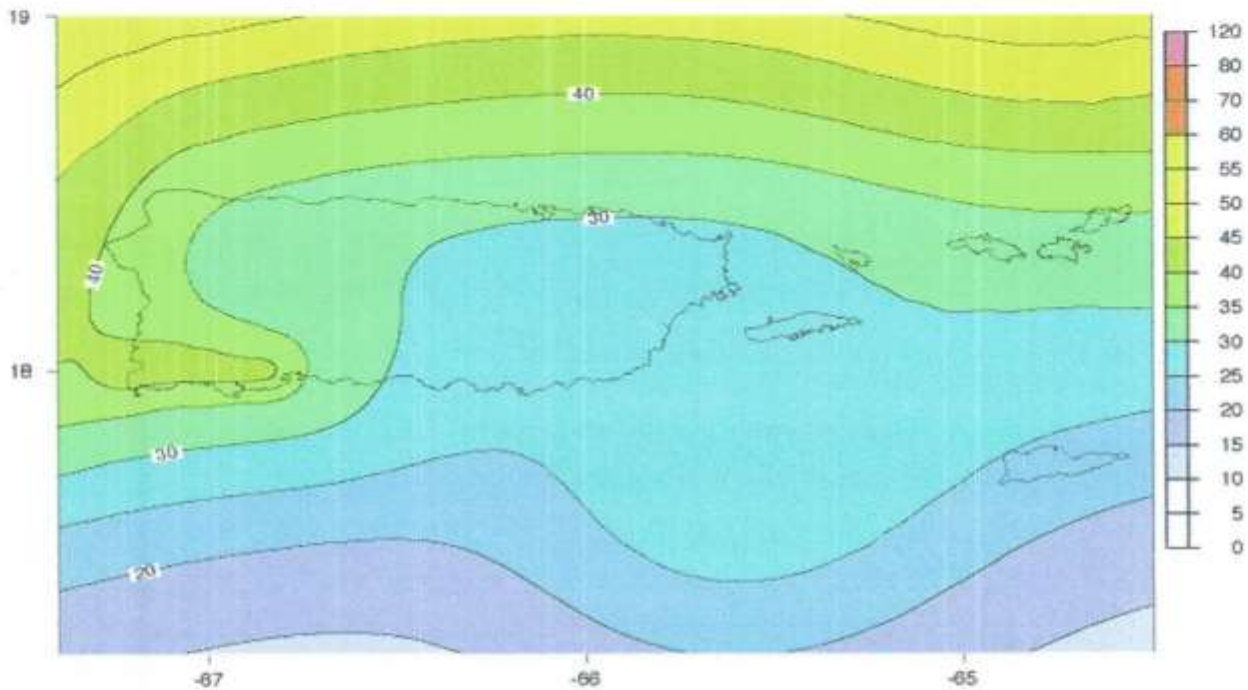


Éste muestra claramente la intensa actividad sísmica en el área del proyecto propuesto. Ésta se mantiene activa en el área y se proyecta que se mantenga por varias décadas. Como consecuencia del sismo de 6.4 hubo desplazamientos verticales y laterales a través de la región suroeste. Se estima que el área de máximo desplazamiento vertical negativo ocurrió en un punto al sur de la Bahía de Guayanilla donde se estimó un hundimiento de unas 7 pulgadas. La intensidad sísmica en el área alcanzó VIII en la escala MMI.

Otra zona de potencial sismogénico es la Fosa de Muertos, al sur de Puerto Rico, que al presente no ha mostrado actividad significativa pero que podría generar un sismo fuerte, si estuviera almacenando energía elástica, como consecuencia de la interacción entre la Placa del Caribe y la micro-placa de Puerto Rico y las Islas Vírgenes.

Hay que mencionar la presencia las fallas en tierra que forman parte del sistema meridional de fallas que discurre desde Aguirre cruzando diagonalmente a través del interior montañoso central hasta salir por Rincón. Este sistema ha mostrado enjambres sísmicos en el pasado y no se puede descartar la posibilidad de un evento significativo. De manera similar, pero con potencial sísmico más bajo, es el sistema septentrional de fallas que se extiende desde el norte de Humacao hasta un área al sur del carso donde se oculta bajo las calizas de edad Terciaria que yacen sobre esta.

Otra estructura sismogénica que resulta de las fuerzas tensionales entre las placas que interactúan en la región de Puerto Rico y las islas Vírgenes es la Fosa de Anegada ubicada al sudeste de Vieques y el noroeste de la isla de Santa Cruz. Aquí se produjo el sismo de las Islas Vírgenes que ocurrió el 18 de noviembre de 1867. Tuvo una magnitud de unos 7.3 grados y produjo un tsunami. Este sismo se sintió con una intensidad de VI en la escala Rossi-Forel en la región de Guánica y Lajas.



1.0-sec spectral acceleration (%g) with 2% probability of exceedance in 50 years from all modeled sources.

El mapa de arriba proviene del USGS - C.S. Muller, A.D. Frankel y E.V. Leyendecker que prepararon una de las primeras versiones del "Seismic Hazard Maps for Puerto Rico and the U.S. Virgin Islands" y que necesita ser actualizado a la luz de los eventos sísmicos del año en curso en el suroeste de Puerto Rico. Muestra la aceleración sísmica que tiene 2% de probabilidad de ser excedida en los próximos 50 años, proveniente de las distintas fuentes sismogénicas que podrían afectar el área de estudio. Se presenta como ejemplo del tipo de análisis que tiene que considerar la DIA, sobre todo después de los eventos de enero pasado, que han aumentado las probabilidades de sismos destructivos en términos de magnitud, frecuencia y peligros geológicos inducidos por terremoto.

No es el propósito de este escrito el presentar un análisis completo de las zonas sismogénicas en la región de Puerto Rico sino demostrar lo crítico que es incluir en la DIA un análisis de la amenaza que presenta la actividad sísmica en el proyecto propuesto.

El área donde se pretende ubicar al proyecto se caracteriza por el alto peligro sísmico que presentan las fallas activas del sur del Valle de Lajas, Punta Montalva y otras que se desconocían y cuya presencia fue revelada por los eventos de los últimos 10 meses. Es importante comprender que eventos sísmicos similares podrían volver a ocurrir al igual que eventos mayores aunque con probabilidad menor.

Eventos sísmicos iguales o mayores que los ocurridos el 7 de enero de 2020 deben ser evaluados y considerados con mucho rigor en la DIA así como el desplazamiento de la actividad sísmica hacia Guánica, Lajas y Cabo Rojo ya que sismos similares a los pasados ocurrieran más cerca o en la misma área del proyecto los impactos serían potencialmente mayores.

En resumen deben identificarse todas las zonas sismogénicas que pueden impactar al área del proyecto de forma significativa. Debe incluir un análisis probabilístico de la magnitud y frecuencia de los eventos sísmicos incluyendo la nueva secuencia que se inició en diciembre de 2019 que incluye directamente el área propuesta para la "Finca Solar. También se deben establecer las aceleraciones sísmicas y desplazamientos que podrían impactar el área del proyecto así como sus consecuencias.

Amplificación de ondas sísmicas:

Otro de los peligros que tienen que ser considerados es la amplificación de ondas sísmicas. Debido a que la mayor parte del proyecto está ubicado sobre depósitos aluviales que progresivamente han ido relleno el Valle de Lajas es esencial que se considere el fenómeno de amplificación de ondas sísmicas.

Esto es necesario debido a que estos lugares pueden hacer que el sismo se sienta más fuerte y que su duración sea mayor. Esto ocurre porque las ondas sísmicas reducen su velocidad y aumentan su amplitud cuando viajan a través de materiales blandos, saturados de agua y de gran espesor. En otras palabras, estos lugares tienden a vibrar más fuerte y por más tiempo que aquellos que son rocosos y rígidos por lo que los daños potenciales al proyecto podrían mayores.

Durante mucho tiempo se ha reconocido que diferentes lugares ubicados a la misma distancia epicentral experimentan grandes variaciones en la distribución de daños debido a la influencia de las condiciones geológicas locales en el movimiento del suelo.

Las características de los sedimentos aluviales, su profundidad o grosor, contenido de agua, las propiedades geotécnicas del material aluvial no consolidado, la topografía del basamento rocoso bajo el manto aluvial, la geometría de los depósitos y las rocas subyacentes pueden modificar los movimientos del suelo cambiando el contenido de amplitud y frecuencia del movimiento. Estas áreas sufren aceleraciones sísmicas mayores por lo que tiemblan más fuerte y por mayor tiempo que en lugares rocosos.

Licuación:

De igual manera, en las áreas aluviales, donde hay materiales arenosos, de edad geológica reciente, de tamaño mediano a fino y saturados de agua puede ocurrir el fenómeno de licuación. Cuando ocurre el terreno se comporta como si fuera arena movediza haciendo que las estructuras ubicadas sobre estos se hundan parcialmente o que sufran asentamientos diferenciales a medida que el agua es expulsada a la superficie. Dicho fenómeno ocurrió en numerosos lugares costeros y aluviales en los municipios de Guánica, Lajas, Guayanilla, Peñuelas y Ponce como consecuencia de los sismos del 6 y 7 de enero del año en curso.

Cuando estos materiales arenosos experimentan el efecto de las ondas sísmicas los mismos tienden a compactarse causando un aumento en la presión del agua que satura los poros en el suelo. Esto es causado por la transferencia de carga de partículas del suelo al agua que ocupa los poros.

Ésta puede drenar hacia afuera y reducir la presión pero, si se restringe, la presión del agua en los poros puede elevarse y alcanzar una fuerza similar a la que ejerce el peso de la columna del suelo sobre la capa arenosa subyacente. En estas condiciones, durante un corto período de tiempo, el suelo podría sufrir grandes deformaciones y comportarse como un fluido en lugar de como un sólido.

Cualquier estructura, relleno o terraplén ubicado en suelo licuado sufrirá deformaciones. Estos pueden accionar flujos laterales del suelo al perder toda su resistencia a los esfuerzos cortantes. Además, pueden ocurrir asentamientos diferenciales y la expulsión de arena a la superficie. El asentamiento de arena es causado principalmente por el componente de cizallamiento horizontal del movimiento.

Las condiciones geológicas que favorecen la licuación incluyen la presencia de lentes de arena saturada y potencialmente licuable. Ésta debe ser porosa, bien diferenciada de acuerdo con el tamaño de sus partículas. Generalmente constituyen formaciones lenticulares que están confinadas por capas de baja permeabilidad. El confinamiento de agua en los poros por capas impermeables por encima y por debajo del lecho licuable, y la proximidad del lente de arena a la superficie (50 pies o menos) son factores favorables.

La licuación ocurre principalmente donde las arenas se han depositado en los últimos 10,000 años y donde el nivel freático yace a menos de 10 metros de la superficie. Es importante señalar que los depósitos de aluvión donde, está ubicado la mayor parte del proyecto, son cónsonos con estas características que favorecen la licuación.

En Puerto Rico, la licuación se observó en las tierras bajas de Rincón y Añasco durante el terremoto del 11 de octubre de 1918, donde agua y la arena fue expulsada a la superficie a través de numerosas grietas longitudinales en terrenos aluviales. Éste fenómeno ocurrió en zonas donde la intensidad del terremoto (escala Rossi-Forel) fue de VII o mayor.

En resumen, los factores principales que propician la licuación incluyen temblores que produzcan intensidades mayores V o VI en la escala MMI, la presencia de materiales arenosos sueltos, de edad geológica reciente, ubicados cerca de la superficie y que

estén saturados por agua. Estas condiciones pueden estar presentes en los terrenos aluviales del proyecto y no han sido evaluadas en la DIA.

La ubicación del proyecto propuesto dentro de materiales geológicos susceptibles a la licuación del terreno así como la amplificación de ondas sísmicas sin una evaluación geotécnica detallada de los peligros potenciales, plantea una deficiencia grave en términos de los peligros geológicos inducidos por terremoto en el lugar seleccionado.

Esto es particularmente crítico luego de los terremotos de enero pasado que revelaron un grado de peligro sísmico mucho mayor que el que se tenía anteriormente. De hecho, al presente se considera que el sistema de fallas del sur del Valle de Lajas y de la falla de Punta Montalva son parte del margen de placa que bordea la micro-placa de Puerto Rico y las Islas Vírgenes.

Dentro de este contexto es muy importante evaluar el potencial de ruptura del terreno en caso de que afloren las fallas geológicas a la superficie. El sistema de la falla Punta Montalva discurre justamente al sur del proyecto. Ramificaciones asociadas a dicha falla podrían aflorar en el proyecto.

Al igual que la mayoría de los sistemas de fallas de Puerto Rico éstas se caracterizan por ser de corrimiento lateral izquierdo. Esto significa que de ocurrir un movimiento lateral a lo largo de una falla en la superficie, el área del proyecto podría desplazarse hacia el oeste, a lo largo de la parte norte de la falla, mientras la parte al sur de la falla que se movería hacia el este. Esto causaría roturas y desgarres en las instalaciones del proyecto propuesto ubicadas directamente sobre la falla.

Hay que evaluar el potencial de fallas subsuperficiales que estén ubicadas bajo el proyecto y que eventualmente puedan aflorar corto y mediano plazo durante la vida útil del proyecto. Dicha consideración requiere establecer sus consecuencias en las instalaciones del propio proyecto y cómo se mitigarían sus efectos.



Ubicación de la falla de Punta Montalva a lo largo del borde sur del proyecto "Montalva Solar Farm. Imagen tomada de "temblor" del informe de A. López referenciado al principio.

Deficiencias en el análisis de los impactos geológicos encontrados en la Declaración de Impacto Ambiental del proyecto "Montalva Solar Farm – Guánica – Lajas" (B – DIA)

Opinión pericial del José Molinelli Freytes Ph. D.

Resumen de conclusiones principales:

1. La DIA no cumple su propio propósito, ni los objetivos de la ley que lo requiere, al no identificar, evaluar, ni considerar las implicaciones de los impactos geológicos que son críticos para éste proyecto.
2. La amenaza que presentan los peligros geológicos, fueron ignoradas en la DIA, a pesar de que deben ser parte esencial para la determinación de la viabilidad del Proyecto, en el lugar propuesto, por la seria amenaza que presentan al mismo.
3. Los peligros inducidos por terremoto son críticos para determinar la viabilidad del Proyecto y deben ser evaluados y analizados rigurosamente.
4. Éstos presentan un alto riesgo para el Proyecto debido a que pretenden ubicarlo en el mismo margen tectónico de la micro-placa de Puerto Rico e Islas Vírgenes con la placa del Caribe. A lo largo del mismo hay sistemas de fallas geológicas activas como la del Sur del Valle de Lajas y la de Punta Montalva en Guánica que discurren por la porción sur del Proyecto. Esto significa que el Proyecto puede estar expuesto al efecto de terremotos fuertes muy cercanos y hasta en el Proyecto mismo.
5. Otras fallas, desconocidas hasta el momento se han activado tanto en la parte terrestre como marina de los municipios Lajas, Guánica, Guayanilla, Peñuelas y Ponce.
6. El margen tectónico está muy activo, en pleno desarrollo y ha producido miles de sismos durante los últimos diez meses. Los más fuertes de 5.7, 5.8 y 6.4 se han sentido fuertemente a través de toda la Isla siendo muy destructivos en la region suroeste, particularmente entre Lajas y Ponce. En Guánica y Guayanilla los daños fueron mayores causando daños de diverso grado incluyendo serias afectaciones estructurales y hasta el colapso de escuelas, centros gubernamentales, Iglesias, comercios, viviendas, carreteras y autopistas y plantas de generación de energía entre otros.
7. Pueden haber eventos similares o más fuertes en esta región por lo que la DIA deberá considerar los escenarios más críticos "worst case scenario" para el Proyecto.
8. Esto conlleva la determinación de la aceleración, duración, magnitud y frecuencia de eventos sísmicos que pueden impactar el área del Proyecto desde distintas fuentes sismogénicas.
9. Específicamente los terremotos, no solo pueden causar daños por las vibraciones que producen sino que pueden causar la licuación del terreno y amplificar las ondas sísmicas de acuerdo a las características de los depósitos aluviales que nunca fueron determinadas y evaluadas en la DIA.
10. La licuación es común en los terrenos aluviales (Qa) como los que ocupan la mayor parte del Proyecto. Éstos pueden tener lentes de arena, de tamaño mediano a fino,

estar saturadas por agua y tener poca cohesión por lo que durante un sismo pueden fluidizarse haciendo que el terreno pierda su capacidad de carga y se convierta en algo similar a la arena movediza. Esto podría causar asentamientos diferenciales en el terreno y hundimientos de porciones de las instalaciones del sistema propuesto.

11. La amplificación de ondas sísmicas es característica de terrenos aluviales profundos, saturados por agua y constituido de materiales no consolidados como el "Qa" que domina el área del Proyecto. Estos materiales geológicos reducen la velocidad de las ondas sísmicas al disminuir la longitud y aumentar su amplitud. Esto causa que los terrenos vibren más fuerte y por más tiempo incrementando el potencial de daño a la infraestructura allí ubicada.
12. Otro peligro significativo es el potencial de ruptura y desplazamiento diferencial de la superficie del terreno como consecuencia del afloramiento de una falla geológica en el área del Proyecto. El hipocentro de gran número de sismos ha ocurrido a pocos kilómetros de la superficie y hay que evaluar dicho potencial dentro del Proyecto por su ubicación en el margen de placa y la activación de nuevas fallas subsuperficiales que eran desconocidas hasta el presente. De ocurrir dicha ruptura porciones del Proyecto pueden desplazarse lateral o verticalmente en direcciones opuestas causando rupturas y desgarres en las estructuras e instalaciones del Proyecto.
13. La información geológica, que contiene la DIA, presenta información limitada a dos páginas. Solamente es de carácter descriptivo y está mal traducida del mapa del mapa del que provino. No considera las implicaciones que pueda tener dicha geología en el proyecto. El mapa geológico se limita solo al área específica del proyecto excluyendo la geología circundante como si lo considerara un sistema aislado que no interactúa con el ambiente geológico aledaño.
14. Dado el alto nivel de peligro sísmico del área donde se quiere ubicar el Proyecto es inconcebible que no se mencione en la DIA. La consideración rigurosa y detallada de estos peligros es indispensable para cumplir con los requisitos de la DIA.
15. Al no considerar los peligros geológicos pone en riesgo no solo la inversión de \$250 millones sino la funcionalidad de las áreas industriales, comerciales, residenciales y de servicio que serán servidas por la energía que aquí se genere.



Preparado por José Molinelli Freytes Ph.D.

Geomorfólogo

29 de octubre de 2020

Exhibit 2



**Institute for Energy Economics
and Financial Analysis**
IEEFA.org

14900 Detroit Avenue, Suite 206
Lakewood, OH 44107
216-712-6612
staff@ieefa.org

October 13, 2021

Deanne Criswell
FEMA Administrator

Brenda Mallory
Council on Environmental Quality

Gina McCarthy
White House National Climate Advisor

Gretchen Sierra-Zorita
White House Office of Intergovernmental Affairs

Cc: Congressman Grijalva and members of the House Natural Resources Committee To

Whom It May Concern:

I am writing to express my concern with the pending use of billions of dollars of FEMA funds for Puerto Rico's electrical system. Puerto Rico's plan is bad economic and fiscal policy and makes a mockery of the Biden administration's climate policy goals of decarbonizing the

nation's electricity sector by 2035.

The Puerto Rico government has proposed a 10-year plan to use over \$14 billion in FEMA funds to rebuild essentially the same centralized grid that failed during Hurricane Maria. The plan earmarks \$0 of federal funds for renewable energy. The CEO of PREPA testified to Congress on October 6th in support of using federal funds for new imported liquefied natural gas (LNG) projects.

Professional technical studies support the rapid deployment of rooftop solar and storage as the best way to provide resiliency to households, dramatically reduce the island's dependence on fossil fuels, and lower and stabilize electric rates – at a lower capital cost than the poorly designed plan made by PREPA, the Island's utility.¹ The Puerto Rico Energy Bureau has also questioned the level of proposed transmission and distribution system spending by PREPA. PREPA never showed that its proposed investments in system hardening were cost-effective

¹ Vila Biaggi, Kunkel and Irizarry Rivera. [We Want Sun and We Want More](#). March 2021; EE Plus. [Puerto Rico Distribution Modeling](#). March 2021; Energy Futures Group. [Puerto Rico Distributed Energy Resource Integration Study](#). February 2021; Telos Energy. [Puerto Rico Distributed Energy Resource Integration Study](#). December 2020.

1

relative to other alternatives.¹⁶¹ The sad history of spending billions and having nothing to show for it in Puerto Rico is about to be repeated.

Since 2018 PREPA and the Financial Oversight and Management Board (FOMB)¹⁶² have identified an expansion of renewable energy as the linchpin to Budget balance for the authority. The current fuel budget made up of coal, oil and natural gas must be replaced or Puerto Rico's economy will continue to be held captive to market volatility and price spikes. This year alone price spikes in natural gas and oil have driven four electric rate increases.

Puerto Rico's current path of rebuilding the centralized grid and privatizing the island's power plants will prolong the island's dependence on fossil fuels, which is the leading cause of rising electric rates. Four years after Hurricane Maria, Puerto Rico continues to generate more than 95% of its electricity from fossil fuels; although the transition to renewable energy has been identified in formal budget and energy plans as a central part of the solution, next to no progress has been made. The federal funds available in this moment represent the best, and only, opportunity for Puerto Rico to realize this vision. I urge your offices to work together to

¹⁶¹ Puerto Rico Energy Bureau. Final Resolution and Order. Case No. CEPR-AP-2018-0001. August 2020. P. 229.

¹⁶² (FY 2018 p. 52)

ensure that this opportunity is not wasted.

I have been in and around government program and finances since the 1970's. If this plan goes forward in its current form Puerto Rico is guaranteed a newly built, poorly equipped and outdated grid, a permanent fiscal crisis and rising electricity rates.

Sincerely,

A handwritten signature in black ink that reads "Tom Sanzillo". The signature is written in a cursive, slightly slanted style.

Tom Sanzillo

Director of Financial Analysis

Institute for Energy Economics and Financial Analysis tsanzillo@ieefa.org

Exhibit 3

1 Representatives

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Banlfingtnn. t!Q! 2D5 I 5

Deanne Criswell
Administrator

October 25, 2021

Federal Emergency Management Agency (FEMA)
500 C St SW
Washington, DC 20024

Dear Ms. Criswell,

Puerto Rico is currently experiencing an energy crisis with life-threatening consequences for its more than three million residents. Despite paying nearly twice as much for electricity compared to stateside residents, Puerto Ricans continue to be burdened by regular power outages and other service disruptions due to the territory's fragile and mismanaged electrical infrastructure.¹⁶³ As you know, more than \$9.4 billion in federal recovery funds have been assigned by the Federal Emergency Management Agency (FEMA) to rebuild Puerto Rico's power grid following a series of natural disasters in recent years.¹⁶⁴ However, residents and elected officials in Puerto Rico have expressed concerns that current plans to utilize these funds fail to invest in renewable energy alternatives like rooftop solar and battery storage, which experts have found could significantly increase Puerto Rico's generation potential and help offset the currently unstable grid.³ I am requesting that FEMA, as the entity responsible for providing these funds and reviewing proposals so that they meet standards set by federal and local law, commit to working with all relevant parties to direct federal funds towards expanding Puerto Rico's rooftop solar and battery storage capacities at amounts sufficient for meeting the goals outlined in the "Puerto Rico Energy Public Policy Act."

In an effort to decrease Puerto Rico's reliance on imported fossil fuels to generate electricity and increase its share of cleaner renewable energy, Puerto Rico's legislature enacted the "Puerto Rico

¹⁶³ U.S. Energy Information Administration (EIA). *Puerto Rico Territory Energy Profile*.

<https://www.eia.gov/state/print.php?sid=RQ>. Updated October 21, 2021. According to the EIA, the average cost in cents/kWh in Puerto Rico compared to the United States was about 1.45 times higher for "Residential" electricity, about 1.93 times higher for "Commercial" electricity, and about 2.37 times higher for "Industrial" electricity for the July 2021 period.

¹⁶⁴ Federal Emergency Management Agency (FEMA). *FEMA Explains Processes for Island's Power Grid Projects*. Sept. 22, 2021. <https://www.fema.gov/press-release/20210922/fema-explains-processes-islands-power-grid-projects>³ Sigrin, Ben, and Mooney, Meghan. *Rooftop Solar Technical Potential for Low-to-Moderate Income Households in the United States*. National Renewable Energy Laboratory. NREL/TP-6A20-70901. 2018. <https://www.nrel.gov/docs/fy18osti/70901.pdf>.

Energy Public Policy Act” in May of 2019.¹⁶⁵ This law, in part, requires increasing the percentage of the island’s energy that is generated by renewable sources to 40% by 2025, 60% by 2040, and 100% by 2050.⁵ However, Puerto Rico’s current energy production falls far short of even the lowest and nearest of those goals. In fiscal year 2020, only 2.3% of Puerto Rico’s electricity came from renewable sources, including just 1.4% from solar.⁶

Despite a clear need for significant and immediate investment in renewables to meet Puerto Rico’s energy goals, recent actions from island authorities have impeded such investments. For example, the Financial Management and Oversight Board (FOMB) of Puerto Rico recently rejected 16 utility-scale solar energy projects.⁷ The Puerto Rico Electric Power Authority (PREPA) claimed this decision was “unjust” and would result in the “deterioration of the working relationship” between the organizations.¹⁶⁶ However, PREPA’s own 10-Year Infrastructure Plan initially failed to reserve federal funds for bolstering renewable energy and storage, and instead called for these funds to be put towards hardening the centralized grid and developing new natural gas infrastructure.¹⁶⁷ Although PREPA intends to solicit more bids for projects focused on renewables, this process has been repeatedly delayed.¹⁶⁸

These decisions and delays have hindered Puerto Rico’s ability to transform its electrical system and are in direct opposition to President Biden’s objective to invest in clean energy and promote environmental justice nationally.¹⁶⁹ According to a March 2021 report, achieving 75 percent distributed renewable energy generation in 15 years is possible by equipping all Puerto Rican homes with 2.7 kW photovoltaic panels and a 12.6 kWh battery backup, in addition to solar installations at commercial sites like parking lots.¹⁷⁰ Doing so would not only cut imported fossil fuel costs from approximately \$1.4 billion annually to \$430 million annually, but it could also

⁵ SB 1121 Puerto Rico Energy Public Policy Act, p. 23, accessed August 2021. The law also requires the closing of all coal-fired electrical generation by 2028.

¹⁶⁵ See: “Puerto Rico Energy Public Policy Act” [Act. No. 17 of April 11, 2019]. Office of Management and Budget, Government of Puerto Rico. <https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/2-ingles/17-2019.pdf>.

¹⁶⁶ Fajardo, Rosario. *FOMB and Prepa Clash Over Renewable Energy Agreements*.

The Weekly Journal. Aug. 26, 2020. https://www.theweeklyjournal.com/business/fomb-and-prepa-clash-overrenewable-energy-agreements/article_5aa49532-e71a-11ea-8ebc-47ff7e65c17e.html

¹⁶⁷ Puerto Rico Electric Power Authority (PREPA) & Federal Emergency Management Agency (FEMA). *PREPA 10Year Infrastructure Plan*. Updated March 2021. https://aepr.com/es-pr/Documents/20201207_PREPA%2010Year%20Infrastructure%20Plan_vF.pdf

¹⁶⁸ Government of Puerto Rico, Public Service Regulatory Board, Puerto Rico Energy Bureau (PREB). *Request for Extension of Time to File Updated Procurement Plan Required by December 8, 2020 Resolution and Order*. Apr. 30, 2021. <https://energia.pr.gov/wp-content/uploads/sites/7/2021/05/Request-of-the-PREPA-for-Extension-of-Timeto-Fi.pdf>

¹⁶⁹ The White House. Presidential Actions. *Executive Order on Tackling the Climate Crisis at Home and Abroad*. Jan. 27, 2021.

<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-theclimate-crisis-at-home-and-abroad/>

¹⁷⁰ M. Vila Biaggi, Ingrid. Kunkel, Cathy. A. Irizarry Rivera, Agustín. *We Want Sun and We Want More: 75% Distributed Renewable Generation in 15 Years in Puerto Rico Is Achievable and Affordable*. CAMBIO PR & Institute for Energy Economics and Financial Analysis (IEEFA). March 2021. p. 2. https://ieefa.org/wpcontent/uploads/2021/03/We-Want-Sun-and-We-Want-More_March-2021.pdf

⁶ U.S. Energy Information Administration (EIA). *Puerto Rico: Territory Profile and Energy Estimates*. <https://www.eia.gov/state/analysis.php?sid=RQ>. Updated November 19, 2020. According to the EIA, only 0.3% of Puerto Rico's electricity came from solar power in fiscal year 2015, making it the fastest-growing source of renewable energy in Puerto Rico. Puerto Rico also has 19 hydroelectric generating plants, but electricity generation varies significantly from them and some are more than 100 years old.

⁷ Financial Management and Oversight Board. Public Meeting Documents. *Selection of 150MW of renewable, nonoperational PPOAs*. Feb. 26, 2021.

bring the total system cost down to 15 cents/kWh by 2035.¹⁷¹ However, the report notes that this progress is only possible when supported by federal funds, like the \$9.4 billion assigned by FEMA to upgrade and modernize Puerto Rico's power grid.

As was discussed at an oversight hearing hosted by the House Committee on Natural Resources on October 6, 2021, committing these funds for renewable energy sources like rooftop solar would also reduce the existing gap in access to solar between high- and low-income households in Puerto Rico.¹⁷² A December 2020 report found that low-to-moderate income households, which make up 50% of the local population, spend disproportionately more on energy but are less likely to adopt solar compared to higher-income households.¹⁷³ The report also found that Puerto Rico has 435% more rooftop generation potential than electric consumption among all residential buildings, and 570% more generation potential among low-to-middle income buildings exclusively.¹⁶ Policies that further consider and address these inequities in access to rooftop solar among residents of varying income levels are needed, but immediate progress can be made through the largescale use of federal funds to finally take advantage of Puerto Rico's significant rooftop solar and storage potential.

Additionally, the Committee applauds the recent decision from FEMA and the Department of Energy (DOE) to carry out a study to examine methods for achieving Puerto Rico's goal of building an energy system entirely based on renewables. This study is an answer to requests from many interest groups on the island engaged in resolving Puerto Rico's energy troubles and its findings will be extremely valuable to the objective of transforming Puerto Rico's energy system. I encourage FEMA and DOE to provide ample focus to the benefits of rooftop solar and battery storage within the scope of this study and I reiterate the importance of utilizing federal funds from FEMA to develop and expand these renewable energy sources.

Puerto Rico requires immediate action to mitigate its energy crisis. It is unacceptable that consumers are forced to endure recurring blackouts and increased rates while the bureaucracy that operates Puerto Rico's electrical infrastructure continues to delay and deter progress on building a new system that harnesses the island's massive potential for renewables. I respectfully request that FEMA help us realize a new energy future for Puerto Rico by ensuring that the funds reserved for upgrading the power grid include robust and specific investments in rooftop solar and storage at levels that facilitate 40% generation from renewables by 2025 and, ultimately, 100% renewable generation by 2050.

¹⁷¹ Ibid, p. 17.

¹⁷² House Committee on Natural Resources, 117th Congress. House Committee Hearing. *Puerto Rico Electric Power Authority (PREPA) Post-Implementation of the LUMA Transmission and Distribution Contract*. Oct. 6, 2021. <https://www.congress.gov/event/117th-congress/house-event/114107>

¹⁷³ Sigrin, Ben, and Mooney, Meghan. *Rooftop Solar Technical Potential for Low-to-Moderate Income Households in the United States*. p. 2. <https://www.nrel.gov/docs/fy18osti/70901.pdf>. ¹⁶ Ibid, p. 12.

Thank you for considering this request and I welcome the opportunity to engage with you and others further on this subject. Please contact Ivan Robles with the Committee's Office of Insular

Affairs at Ivan.Robles@mail.house.gov or 202-794-0961 if you have any questions about this request.

Sincerely,

A handwritten signature in blue ink that reads "Raúl M. Grijalva". The signature is written in a cursive style with a large, stylized "G" for the last name.

Raúl M. Grijalva

Chair

Committee on Natural Resources

House



Main Office: 422 Oakland Valley Rd. Cuddebackville, NY 12729

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November 30, 2021

Submitted via

www.regulations.gov

White House Environmental Justice Advisory Council

Docket ID No. EPA-HQ-AO-2021-0683

We would like to express our thanks and appreciation to the members of the White House Environmental Justice Advisory Council for their efforts to make substantial recommendations to advance initiatives that will promote the achievement of environmental justice.

Despite the urgency of climate change, recent legislation has supported billions of dollars in additional subsidies for nuclear energy- both for existing reactors and new so-called advanced versions. This spending will significantly delay achievement of our climate goals. It could also contribute to nuclear catastrophe. Major long term funding will be required for new unproven nuclear technologies, significantly hindering the attainment of climate goals and the associated benefits. Investments in renewables and efficiency will deliver clean energy faster and at a fraction of the costs of nuclear, enabling us to easily meet our climate goals faster and avoid the enormous costs from climate damages.

The consequences of not meeting the climate goals mount every year—millions more acres, homes and businesses burned, thousands of people breathing dangerous levels of fine particulate matter. Then there are the more severe storms and flooding and the damages to cities and towns and rising deaths. Rising storm damage also has the real potential of impacting nuclear reactors, yet little consideration has been given to thorough evaluations of every reactor in the country for possible catastrophic impacts – initiated by rising floodwaters, dam failures, and tornados, etc.

Exelon and EDF, Inc. acting separately, have disclosed the harsh truth about Nuclear Power. They are reducing their ownership interests and future involvement with nuclear reactors. Despite massive subsidies in a variety of forms for approximately 70

A Clean Environment* Green Purchasing* Pollution Prevention* Healthy People* Green Jobs* Zero Waste
A Healthy Economy* A Sustainable Future

years, nuclear power cannot stand on its own economically, in the absence of substantial taxpayer subsidies. Taxpayers can no longer sustain this failing industry. This overall situation has been expected for some time with Wall Street frowning on the economics of nuclear, despite extraordinary government subsidies that ensured economic gains for investors, while assigning the risks to the public.

Selling the Public on Nuclear Power

“Atoms for Peace” was launched by President Eisenhower in the 1950s as a way of balancing nuclear warfare with a domestic use for nuclear power. The public was promised “electricity too cheap to meter” – but this promise was never realized. Nuclear waste was also said to be an easy problem to solve, so it was given no attention.

It now looms as a major threat to our nation. It is clearly not easily solved.

According to the Union of Concerned Scientists, from the beginning, government subsidies have been directed to every portion of the nuclear fuel cycle with 4 main goals:

- Reducing the cost of capital, labor and land
- Masking the true cost of producing nuclear energy
- Shifting the security and accident risks to the public
- Shifting long-term operating risks (decommissioning & waste management) to the public ¹⁷⁴

The public generally has born the burden of significant subsidies for nuclear, via increased taxes, and higher electric bills. Non- monetary health and safety risks, which pose significant impacts for the public have not received appropriate attention or the necessary budget allocations to provide adequate public safety. Workers regularly receive excess exposures due to inadequate controls at work or untrained or incompetent supervisors.

Waste Legacy Costs borne by the public.

More nuclear reactors are undergoing decommissioning and the magnitude of dangers

¹⁷⁴ Koplow, Doug, **Nuclear Power: Still Not Viable without Subsidies**, Union of Concerned Scientists, Feb. 2011.

associated with waste management and whether funds are sufficient for a complete cleanup is of increasing concern for the public. This is also true at many early nuclear waste sites where few protections were put in place. Such legacy waste can impact public spaces and drinking water supplies. The long timeline for decay of some radionuclides means many generations will require adequate protection for many thousands of years. Health impacts across multiple generations are an intergenerational

injustice, where careless radioactive waste handling today can harm many future generations in the future, leaving a legacy of cancer, birth defects and illness. At the West Valley Nuclear Waste site in New York, the site was chosen upstream of Seneca nation territory before any of our major environmental laws were passed. High level wastes are stored there despite the danger that severe erosion will release radioactive waste to the drinking water for millions of people in Buffalo and Western NY.

The US General Accounting Office has identified nuclear wastes as a high risk for the entire nation due to the growth of environmental liabilities.¹⁷⁵ Environmental monetary liabilities in 2018 (\$377 billion) exceeded funding for actual site cleanups (\$46.8 billion) by eight times. Inadequate funding for the Dept. of Energy to cleanup sites and isolate dangerous radionuclides means that we are allowing the transfer of nuclear wastes into current and future public health problems. Notably many communities deal with extraordinary inequities associated with past environmental abuses—yet face new severe threats created by our nuclear agencies- DOE & NRC.

Today we have few waste solutions. We have no plans for a repository and it is clear from the budget allocations alone that we are not adequately managing our waste problems. Some notorious wastes sites have been worked on for decades with no reasonable completion dates in sight, like Hanford and Savannah River. We do have many that threaten nearby communities or water supplies.

Government subsidies have not stabilized the nuclear industry. It is failing.

Unfortunately today government agencies are coming up with new creative forms of regulatory relief that also serve as subsidies for the nuclear industry- but are dangerous to public health.

Under the Trump administration, agencies often lacked managers with adequate

¹⁷⁵ DOE- Program-Wide Strategy and Better Reporting Needed to Address Growing Environmental Cleanup Liability, GAO 19-29 report, January 2019, <https://www.gao.gov/assets/700/696632.pdf>

education and training appropriate to the tasks. We experienced worsening deregulation in the nuclear industry at DOE and NRC.

Some examples:

- Spent fuel pools were allowed to increase the density of spent fuel by 2-3 times beyond their original design specifications, delaying movement to dry storage and increasing potential catastrophic risks.
-
- Additional safety standards for these spent fuel pools were recommended following the Fukushima disaster by the National Academy of Sciences, but NRC rejected most of the recommendations, allowing only one.
 - High Level Waste was deregulated—reducing former applicable regulations.
 - Greater than Class C waste was proposed for reduced regulation, thus no longer needing a repository. No final decision has been made yet (status not certain).
 - High Burnup Fuel needed more comprehensive research according to the US Nuclear Waste Technical Review Board in a 2010 report. Rather than arrange the research, NRC has moved forward with higher burnups and enrichment up to just under 20%. In 2016, the NWTRB renewed its request for the needed research on high burnup fuel.
 - NRC staff approved a proposed rulemaking for the monitoring of CRUD on fuel rods in the core of reactors to ensure that emergency cooling of the core would not be adversely impacted. Higher burnup fuel creates more CRUD. The Commission rejected the proposal. Since then NRC is allowing reactors to test accident tolerant fuels while also using high burnup fuels in the reactors.
 - Fuel enrichment to provide higher burnups requires enrichment facilities that use Uranium Hexafluoride or UF-6. This compound has significant global warming potential- 23,900 times that of carbon dioxide, and little that removes or destroys it once released. Current enrichment is approximately at 5%. Enriching to almost 20% will require four times as much UF-6. UF-6 is also hazardous to humans from manufacturing and transportation releases.
 - Remote transfer systems (RTSs) to transfer leaking containers of spent nuclear fuel were adopted by NRC as requirements in 2014, but abandoned for planned

Consolidated Interim Storage Facilities. The plan is to Return to Sender even if that requires thousands of miles with a radioactive leak. Remote handling is required for worker protection from highly radioactive emissions associated with a leak.

- Extending reactor licenses far beyond their original design life to 80 or 100 years is another new plan being implemented in the absence of adequate scientific and environmental review. Coupled with this there will be no testing of metal samples in the reactor core to ensure the pressure vessel will not experience sudden shattering during emergency cooling. This sample testing was a previous requirement.

Such extensive deregulation related to nuclear reactors and waste exacerbates the potential risks associated with climate change and should be given concentrated attention and regulation to prevent catastrophe.

Note: This is not intended to be a complete list. To our knowledge no federal agency has estimated the value of these deregulatory subsidies for this industry.

Our Comments are below in Bold related to some items.

WHEJAC Final Report Executive Order 14008 p. 59

EXAMPLES OF THE TYPES OF PROJECTS THAT WILL NOT BENEFIT A COMMUNITY

1. Fossil fuel procurement, development, infrastructure repair that would in any way extend lifespan or production capacity, transmission system investments to facilitate fossil-fired generation or any related subsidy.
2. **Carbon capture and storage (CCS) or carbon capture, utilization, and storage (CCUS). This technology has been promoted for several years with little technical progress and likelihood of achieving success with long term storage, despite its high cost.**
3. Direct air capture
4. **The procurement of nuclear power**

Nuclear Power as a technology is a long term economic failure – much of it is hidden

from the public because taxpayers have been forced to pay long term subsidies to the nuclear industry, continuously from its inception. Today nuclear power offers no economic benefits. Renewable energy and efficiency are cheaper, and more quickly implemented—essential to the urgent need to address climate change.

Item #13 below. Abandonment of Radioactive Waste

Despite the billions in subsidies, massive taxpayer bills loom in the future related to the failure to handle the long term safe management of nuclear waste in a permanent repository. The US GAO recently cautioned that this bill may ultimately be paid by taxpayers. (GAO21-603, Sept. 2021) As of Sept. 2020, the Nuclear Waste Fund Balance was almost \$43 billion with interest accrued over the last ten years of \$1.4 billion per year. The possible costs estimated for 2117- \$83 billion to \$127 billion. According to GAO, if nuclear waste fees remain at zero and if the funds are not adequate to cover repository costs, the American taxpayer may ultimately pay the additional costs.(p.32-33)

GAO also declared that the environmental liabilities associated with nuclear waste are high risk for the nation and are not adequately funded. Hundreds of sites currently pose health and safety risks to communities, their water, air and environments. Many radionuclides are highly toxic and long-lived, causing cancer and birth defects and other harms. The public is jeopardized by potential catastrophic nuclear accidents, like Three-mile Island, Chernobyl and Fukushima. In addition environmental contamination associated with nuclear waste can cause health damage for many future generations. This represents severe Inter-generational Injustice. We know of two areas impacted by wildfires containing nuclear waste that burned spreading contamination— Santa Susana Field Lab in California and the Los Alamos National Lab in New Mexico.

A small area of the Southwest has been targeted for enormous quantities of high level spent nuclear fuel storage or consolidated interim storage in New Mexico and nearby in Texas. This is an environmental justice community of Native Americans and Hispanic Americans. These large facilities will be visible by air and vulnerable to a terror attack. This area is a prime oil and gas drilling region- the Permian basin. Nearby WIPP, the Waste Isolation Pilot Project, continues to store transuranic waste underground in a salt repository, despite the serious accident in 2014 that released plutonium, contaminating workers.

Historically this area was subjected to Trinity nuclear bomb testing. Uranium mining has also resulted in extensive contamination at multiple sites that has not been remediated. The Ogallala aquifer that serves multiple states could be impacted by the plans for consolidated storage of hi level spent nuclear fuel.

5. Research and development
6. The establishment or advancement of carbon markets, including cap and trade
7. Geoengineering and techno fixes
8. Highway expansion
9. Road improvements or automobile infra-structure, other than electric vehicle charging stations
10. Industrial scale bioenergy
11. Incentives for investor-owned utilities
12. Projects that promote gentrification without any housing policy crafted by a community to prevent displacement
13. Incineration, waste-to-energy or biomass incineration, and landfilling (Anishinabek Nation and Iroquois Caucus Transport and **Abandonment of Radioactive Waste**)
14. Pipeline creation, expansion, or maintenance
15. Memo to the Biden administration: What not to do on climate
16. The Conversation: Climate Scientists: Concept of Net Zero Is A Dangerous Trap
17. NAACP Environmental and Climate Justice Program: Fossil Fueled Foolery

WHEJAC Final Report Executive Order 14008 p. 19

Current Program / Agency: Tennessee Valley Authority Recommendation: As the nation's largest public power provider, Tennessee Valley Authority should lead by example by implementing a transition to clean energy well ahead of the President's industry-wide target of 2035, as well as by ensuring the large population of disadvantaged communities in their territory receive the benefits of this transition. Specific actions the administration should take include calling on TVA to set an ambitious goal of transitioning to clean energy by 2030 in its next integrated resource plan, creating a specific carve out for TVA in federal Clean Energy Standards, and prioritizing the rapid and safe cleanup of coal ash contaminated sites across its territory.

Our Recommendations: The TVA has invested heavily in nuclear and fossil fuels. It has failed to responsibly invest in energy efficiency and renewables as many utilities across the country have. The other TVA priority should be to address climate change risks- such as flooding and storms- to existing facilities such as nuclear reactors and dams. TVA should not be permitted to invest in any new nuclear projects.

Thank you for the opportunity to comment on the extensive work of the Advisory Council.

Sincerely,

A handwritten signature in black ink that reads "Barbara J. Warren". The signature is written in a cursive style with a large initial 'B'.

Barbara Warren RN, MS
Executive Director

kwm-h34a-qnot
Comment tracking number

SHERRI WHITE-WILLIAMSON

ENVIRONMENTAL JUSTICE COMMUNITY ACTION NETWORK

FOREST BIOMASS THREATENS COMMUNITIES AND FORESTS

- The biomass energy industry turns **trees into wood pellets and then burns them for power** at utility scale. Biomass is not clean energy. The industry can **emit more carbon pollution than fossil fuels** and causes long-lasting damage to forests and wildlife.
- The fast-growing demand for wood pellets mostly comes from Europe. Much of the wood used for the global biomass industry is **sourced from Southern forests**. Enviva, which is the world's largest wood pellet producer, operates five pellet mills in North Carolina and Virginia. The amount of wood needed for these mills require harvesting **approximately 57,000 acres of forests each year**.
- Cutting forests at this scale degrades water quality and destroys wildlife habitats.
- These wood pellet facilities also **release toxic pollutants and fine particulates** that are linked to serious health issues, like asthma and heart disease, in nearby communities.
- These disruptive and dirty facilities are often built in **low-wealth areas and communities of color**, who already bear the brunt of environmental harms. These communities are exposed to **increased air pollution and dust from these facilities, round-the-clock noise, local tree loss, and increased truck and rail traffic**—all things that can negatively impact their health and quality of life.
- In North Carolina, Enviva's Sampson mill is located on the border of Sampson and Duplin counties, both of which are designated as **Tier 1, economically distressed** counties. In the area within a 5 mile radius of the Sampson mill **61% of the population are people of color and 58% are low-income**.
- A new pellet mill is planned for Robeson County by UK-owned Active Energy Renewable Power, which will use a **commercially untested manufacturing process**. The area around this planned mill is **65 percent people of color and 57 percent lowincome**. Robeson County is home to the **Lumbee Tribe**, the largest tribe east of the Mississippi.
- This new pellet mill will result in additional pollution to the air and the nearby Lumber River, a river rich with cultural and ecological significance. This area is already overburdened by an unfair share of pollution and is the state's **least healthy** county.
- The impacts of the biomass energy industry go far beyond the American South. Burning wood pellets for power can **release more heat-trapping greenhouse gases than**

burning coal. Plus, cutting down Southern forests at a large scale **depletes valuable carbon sinks**, or areas that remove carbon from the atmosphere, which are a crucial climate change solution.

- Biomass energy **worsens the effects of the ongoing climate crisis**, impacting people around the world.
- In September 2021, nearly 100 organizations called on President Biden to exclude forest biomass in the administration's climate policies and incentives to address climate change.

LegalTimes

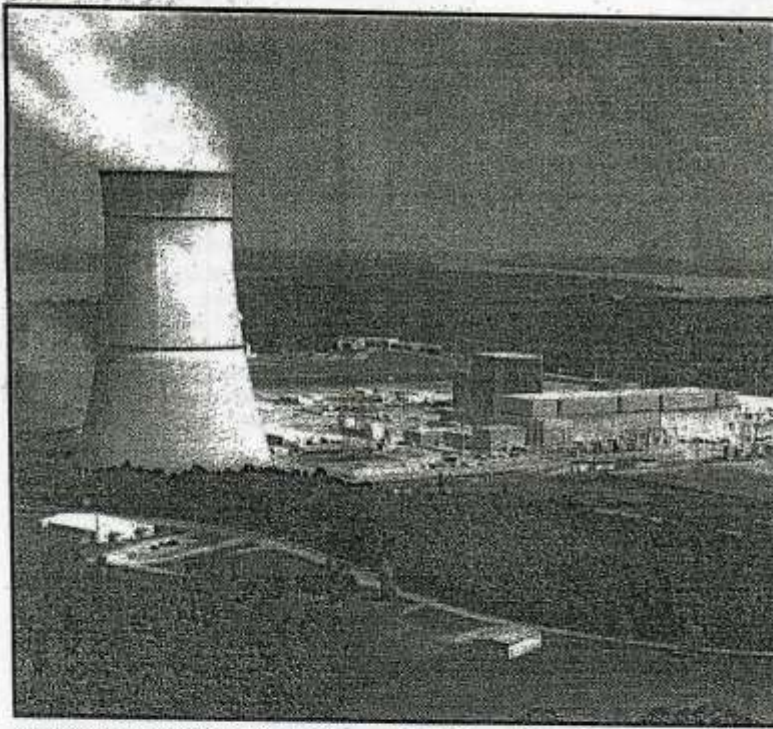
SEPTEMBER 13, 2004

LAW AND LOBBYING IN THE NATION'S CAPITAL

High Noon for Environmental Justice

Dispute over a Mississippi power plant could spell the end for race-based challenges to nuke sites.

BY JASON MCLURE



EXPANSION AT ISSUE: The Grand Gulf power station in Claiborne County, Miss. Opponents of a licensing request before the Nuclear Regulatory Commission say the plant unfairly affects the local minority population.

Nestled deep in the heart of the Mississippi Delta, Claiborne County, Miss., is a patchwork of kudzu-covered hills, coffee-colored alluvial soil, and lush cotton fields. It's one of the poorest counties in America, where one in three residents live below the poverty line and 84 percent are black. It's also home to roughly 1.2 million pounds of high-level radioactive waste stored at the Grand Gulf power station, the only nuclear power plant in the state of Mississippi.

An effort to expand that plant has made Claiborne County something of a nuclear litmus test for a controversial concept known as "environmental justice." And the fallout from a legal battle before the Nuclear Regulatory Commission between Grand Gulf's owners and an alliance of civil rights and environmental groups could have wide-ranging implications for nuclear sites across the nation.

"This case is very important, and it's very clear it will have an impact on all future [environmental justice] cases

SEE ENVIRONMENT, PAGE 11

NUCLEAR ENERGY INSTTUT

NRC Weakens Race-Based Claims

ENVIRONMENT, FROM PAGE 1

at the NRC," says Robert Bullard, director of the Environmental Justice Resource Center at Clark Atlanta University and an expert witness for the civil rights and environmental groups in the case.

Among those likely affected by the case are a host of nuclear energy companies, as well as Navajos opposed to the opening of a uranium mine on the reservation in New Mexico, Goshute Indians seeking to prevent the temporary storage of radioactive waste near traditional lands in Utah, and Western Shoshone Indians who claim land near the proposed national nuclear waste dump at Yucca Mountain in Nevada.

Like affirmative action, environmental justice is a controversial principle. At its core is the idea that certain groups should be granted special consideration because of their race. It seeks to remedy what is often referred to as environmental racism—the notion that poor, minority communities often suffer most from the impacts of large polluters and receive the fewest benefits.

It's an argument that takes into account more than just a plant's impact on human health and the environment. In looking at the burden imposed by a proposed or existing facility, considerations such as emergency preparedness and the risk of harm to the community in the event of an accident can be considered. And in examining the benefits to a community from a facility, those benefits can take the form of jobs that a facility provides or tax money that flows back to the residents.

After a decade of activism by civil rights and environmental groups and the publication of a host of reports showing minorities suffer disproportionately from air, water, and hazardous-waste pollution, and benefit least from cleanup efforts, the concept of environmental justice became part of the federal environmental review process by executive order of President Bill Clinton in 1994.

But on Aug. 24, the NRC—which licenses the nation's 104 nuclear power plants—declared it will no longer separately consider environmental justice contentions in its permitting process. As an independent agency, the NRC says it had voluntarily adopted environmental justice as part of its review process, but argues that it was not legally bound by Clinton's order.

Steven Hayward, a fellow with the conservative American Enterprise Institute, has long questioned the goals and methods of the environmental justice movement.

"[T]he amalgam of politicized civil rights groups and politicized environmentalists often summons the worst reflexes of both movements," Hayward wrote in December 2003, "combining frivolous charges of racism along with unfounded environmental scares."

But the NRC's critics say the agency's about-face reflects the lobbying clout of the nuclear power industry, an industry known for rewarding its political allies with generous campaign contributions. The critics also say it's evidence of a regulator increasingly captive to the industry it's supposed to oversee.

"Under Bush, there's not a whole lot of enforcement of that [environmental justice] mandate," says Sheila Foster, a law professor at Fordham University who studies the subject. "You saw a lot of activity in the late '90s that you don't see anymore." Foster says the NRC has gone further than any other agency in rolling back environmental justice policies.

The NRC's current move to abolish consideration of so-called environmental justice issues targets a handful of current and potential environmental complaints before the commission, says Diane Curran, an environmental justice specialist at D.C.'s Harmon, Curran, Spielberg & Eisenberg.

Curran, who represents the National Association for the Advancement of

Colored People of Claiborne County, the Sierra Club of Mississippi, the Nuclear Information and Resource Service, and Public Citizen, is seeking to block a preliminary permit that would clear the way for Grand Gulf to triple in size—making it one of the largest nuclear power plants in the United States.

Curran says that Grand Gulf is a textbook case of environmental racism—that the impoverished residents of Claiborne County bear a disproportionate risk from the plant while being denied its economic benefits.

But the new NRC policy makes that kind of argument a tougher sell, leaving Curran only to contend that the county's residents are suffering a disparate impact under the National Environmental Policy Act.

Kathryn Sutton and David Repka, lawyers for Grand Gulf's owner, the Entergy Corp., reject any sort of "disparate impact" claim and say the only issue that the NRC should consider is whether the proposed expansion would have a "significant environmental impact" on Claiborne County, which, they say, it would not. The Winston & Strawn D.C. partners also say that Curran's main argument in the case—that the county lacks the financial resources to provide adequate emergency services—is irrelevant when considering impact on the environment.

Entergy says that Claiborne County residents' true gripe is with the state of Mississippi—which has denied the county tax revenue from the power plant for more than 10 years—and not with the plant itself.

But as several environmental justice proponents see it, if race and disparate treatment should ever be considered as a part of the permitting process, it would be hard to find a better case study than that of Grand Gulf and Claiborne County.

"This is a classic in-your-face, slam-dunk case of racial discrimination," Bullard says. The residents of Claiborne County have "hosted a plant for many years without deriving a benefit from it."

Bullard says that's not only because the vast majority of Claiborne County residents are black, but also because it's a county where the legacy of Jim Crow still hovers in the not-too-distant past, a place where in the heat of the civil rights struggle, a group of white merchants sued the local chapter of the NAACP for boycotting their businesses. That suit, upheld by the Mississippi Supreme Court and supported by the largely white state legislature, wasn't dismissed until it reached the U.S. Supreme Court in 1982.

DREAMS AND DISILLUSIONMENT

Ground was broken on the Grand Gulf nuclear power plant in 1974, but like many other nuclear plants built during the period, its construction was plagued by delays and cost overruns. Despite its inauspicious beginning, by 1985, when the plant opened, many in Claiborne County looked forward to an economic renaissance. A county whose population had historically depended on sharecropping anticipated a tide of secure, good-paying jobs. The \$20 million in annual taxes Grand Gulf was expected to generate led local officials to envision ribbons of asphalt covering the county's spider web of dirt roads, the latest in technology for its police and fire crews, and gleaming new school rooms for its 2,000, mostly poor, students.

But two decades later, many of those dreams have been left unfulfilled. The first blow came just a year after the plant opened. Grand Gulf's cost overruns had affected more than just the pocketbooks of shareholders of Entergy, the plant's owner, which absorbed a \$900 million loss from the plant in 1989. Mississippi's electricity customers also were forced to shoulder a portion of the costs in the form of higher rates. To quell discontent

among consumers, the Mississippi Legislature passed a bill that allowed the state to ultimately claim 70 percent of Claiborne County's revenues from Grand Gulf for redistribution to the 44 counties in Mississippi hit by higher power prices. Today, Grand Gulf generates about \$23 million annually in taxes—money that is spread across the state of Mississippi. Claiborne County receives 30 percent of that.

The law, according to the complainants, made Grand Gulf the only power plant in Mississippi and the only nuclear plant in the United States to pay the majority of its property taxes to the state rather than to local government.

Passed in the same year as the catastrophic meltdown at Chernobyl, the bill may have eased hostility to Grand Gulf from the state's electricity customers. But it left Claiborne County's 11,000 residents with just a fraction of the revenue they had been promised.

ASSUMPTION OF RISK

A.C. Garner, the county's director of emergency management at the time and now legal affairs liaison for the local NAACP, says that even two decades later, the lost revenue has



RISK AND REWARD: D.C. lawyer Diane Curran says local residents don't benefit from nuclear plant.

left local residents vulnerable in the event of a possible nuclear accident at Grand Gulf. "It has brought a hardship on Claiborne County," Garner says. "I feel like if Claiborne County was 84 percent white, this situation would have never occurred."

County services in Grand Gulf's 10-mile emergency zone have been strained by the lost revenue as well, according to declarations in the case filed by the plant's opponents. Sheriff Frank Davis' entire nighttime patrol of Claiborne County's 487-square miles—an area eight times that of Washington, D.C.—consists of a single deputy. At the county hospital, the administrator's declaration states that, in the event of an emergency, she would not have enough doctors and nurses to staff both the emergency room and the radiological decontamination unit. And as the Nuclear Information and Resource Center has pointed out, one of the evacuation routes listed in Grand Gulf's 2004 emergency planning brochure has been washed out and impassable for three years.

And in a county where median household income is barely half the national average, Grand Gulf hasn't provided a surfeit of jobs—at least not to Claiborne County residents. According to Entergy, just one in five of Grand Gulf's nearly 800 employees live in Claiborne County. Of those, the NAACP says, fewer than 50 are black.

"We don't feel like an expansion would bring many jobs because they don't employ that many [local] people now," Garner says of Grand Gulf. "I don't feel it is fair to take

the money out and not have people prepared in case of emergency."

Carl Crawford, a spokesman for Entergy, disagrees with the NAACP's assessment. He says the company, America's second-largest nuclear operator, has diligently sought to hire more minorities through community outreach and training programs. "There's no doubt it's a poor community," he says. "It's difficult for many of the residents to qualify for jobs at Grand Gulf."

As Crawford sees it, the legal duel in Washington between Entergy and its opponents is less a battle over environmental justice and the risks posed by an expanded nuclear power plant than an effort by the NAACP to get more property tax paid to Claiborne County. That's a goal he says he understands, but says that Entergy shouldn't be punished for the state of Mississippi's tax laws. "We get our tax bill and pay it," he says.

Sutton, the nuclear regulatory specialist representing Entergy, also points out that Grand Gulf meets all safety standards of the Nuclear Regulatory Commission as well as those of the Federal Emergency Management Agency and the state of Mississippi. "The arguments about taxes and preparedness are not really relevant," she says.

Hope Blackwell, an environmental justice specialist at Georgetown University's Environmental Law and Policy Institute, disagrees. "Both jobs and emergency planning are litigable," she says.

But the largest question raised by the Grand Gulf dispute may not be whether property tax policies can be used as evidence of environmental racism, but whether the NRC itself is an independent regulator. Critics of the commission, including former high-ranking staff and commissioners, say the NRC has lost its way since coming under furious congressional attack in 1998 from Sen. Pete Domenici (R-N.M.) and other allies of the nuclear power industry. It was in that year that a Senate subcommittee voted to slash the NRC budget in the wake of its first environmental justice ruling, a vote that would have eliminated 700 of the NRC's 3,000 employees. After that, says Robert Alvarez, a former senior adviser in the Clinton Energy Department, "the commission did an about-face."

As a result, "they've pretty much fallen in line with the industry outlook, the administration, the Congress," says Victor Gilinsky, a former commissioner under Presidents Ford, Carter, and Reagan who now advises the state of Nevada on Yucca Mountain. "They're not the independent regulators they should be."

That, critics say, is demonstrated in the NRC's newly adopted environmental justice policy, which was written in response to a Dec. 20, 2002, letter on the issue from the Nuclear Energy Institute, the lobbying arm of the industry, which argued that the Clinton administration's environmental justice policy did not "provide a legal basis" for challenging NRC licensing proceedings. A spokesman for the institute declined comment. Registrations filed with the Senate show that the institute spent \$880,000 in 2003 lobbying Congress.

NRC spokeswoman Sue Gagner challenges the contention that the commission has shed its independence. "We have detractors on both sides [of the debate]," she says. "But we have very strict requirements both for getting a license and building facilities."

As for the revised policy statement, Brooke Smith, the NRC attorney who penned it, calls it a "fair and balanced policy" that falls well short of everything the Nuclear Energy Institute demanded in its 2002 letter.

Meanwhile, as the legal battle continues in Washington, the citizens of Claiborne County are hopeful they'll never have to find out just how well-prepared they are for a nuclear crisis. "It's hard to have someone in Washington, D.C., telling you you'll be alright," says the NAACP's Garner. "We look at Three Mile Island. We look at Chernobyl. We understand that things can happen. It doesn't have to happen but one time." ■

Wed, Nov 10, 1:12 PM (4 days ago)

[Why Québec's big bet on hydropower is bad news for the climate](#)
[The notion that Québec can export clean power to the US, as well as decarbonize the province, 'no longer holds up to analysis'](#)

[Joyce Nelson](#) / November 4, 2021 / 7 min read

[ENVIRONMENTCANADA-USA](#)

Photo by Fré Sonneveld/[Unsplash](#)

Hydro-Québec's goal to be "the battery of North America" recently received a setback in Maine. Some 60 percent of voters in a November 2 referendum in that state rejected the New England Clean Energy Corridor (NECEC)—a 233 kilometer high-voltage, directcurrent transmission line intended to bring power from Hydro-Québec's dams through Maine and into Massachusetts for the next 20 years.

Voters in Maine acted to protect their forests and environment from the clear-cutting that would be needed to erect the massive hydroelectric corridor, but they may also have been responding to current scientific thinking that no longer sees all hydropower as "green."

Just days before the referendum vote, the *Bangor Daily News* [published an op-ed](#) by MIT Earth Sciences professor Bradford H. Hager, who warned that the New England Clean Energy Corridor is "unlikely" to reduce carbon emissions, but "may well increase them."

Hager wrote: "I once believed that all hydropower is clean. But recent research shows clearly that some hydropower is not. Unfortunately, the intuitively appealing notion that Québec can export clean power to Massachusetts and New York, as well as decarbonize Québec, no longer holds up to rigorous analysis."

Hager explained that hydro dam reservoirs that are in deep, narrow valleys "as in Switzerland" do provide clean power, but shallow dam reservoirs that flood vast forest lands "as in Brazil and Québec" do not. In Québec, the flooded trees and soil from the boreal forest decay under water in the reservoirs for decades and continually release substantial methane and CO₂ for 50 years or more. As a greenhouse gas, methane is dozens of times more detrimental to the climate than CO₂.

That same decomposition in the dams' reservoirs also accelerates the production of deadly methylmercury pollution that poisons inhabitants of the region.

Legal action

To get a sense of just how vast Hydro-Québec's infrastructure for the NECEC is, we need only look at the 2020 [statement made by three First Nations](#) in opposition to the project. The Innu First Nation of Pessamit, the Atkamekw First Nation of Wemtpaco and the Anishnabek First Nation of Pikogan denounced the "33 production structures, 130 dams and dikes, 10,400 square km of reservoirs, and tens of thousands of transmission, distribution and road lines [that] have been illegally installed on our lands and waters."

Maine voters' rejection of the NECEC is the second time a proposed Hydro-Québec export transmission corridor has been stalled. In 2018, a similar project into New Hampshire, called Northern Pass, was stopped by public opposition.

Just hours after the Maine referendum results, Avangrid Inc., the parent company of Central Main Power and NECEC Transmission LLC, filed a lawsuit in Maine Superior Court, challenging the constitutionality of the referendum.

Hydro-Québec and Québec Premier François Legault have also announced intentions to take legal action to ensure the NECEC goes forward. But getting the populace onside may take more than the courts can deliver. In advance of the November 2 referendum, Hydro-Québec spent \$18 million on public-relations efforts and ads to try to convince Maine voters to accept the project, but a significant majority rejected it.

Supporters of the "No CMP Corridor" campaign stage a rally in Augusta in opposition to a planned hydroelectric power corridor through western Maine, February 3, 2020. Photo by Robert F. Bukaty/AP.

Paris Climate Agreement

It's not widely known that in 2015, at the Paris Climate negotiations, more than 300 civil society organizations from 53 countries released a "[global manifesto](#)" calling on governments and financiers at the talks to keep large hydropower projects out of climate initiatives. Calling large hydro dams "a false solution" to climate change, these organizations stated that large dams "emit massive amounts of methane, make water and energy systems more vulnerable to climate change, and cause severe damage to critical ecosystems and local communities."

These groups were especially concerned that funding sources such as the United Nation's Clean Development Mechanism, the World Bank's Climate Investment Funds, and various green bonds would be financing hydro development around the world on the premise that hydropower is "clean and green."

Their press release stated: "The dam industry advocates that large hydropower projects

be funded by the Green Climate Fund, and many governments boost them as a response to climate change through national initiatives.” The groups noted that “at least twelve governments with major hydropower sectors” have included the expansion of hydropower generation in their reports on their intentions for Nationally Determined Contributions for cutting emissions. “Support from climate initiatives is one of the main reasons why more than 3,700 hydropower dams are currently planned and under construction around the world,” the press release stated.

A 2016 follow-up study, published in *Bio Science* by ten authors in five countries (US, Canada, China, Brazil and the Netherlands), found that dam reservoirs [produce 25 percent more methane than previously thought](#), emitting a billion tons of greenhouse gas emissions annually. They urged that reservoir emissions be included in global carbon budgets, which they currently are not. Dam nation

It is not known whether Canada is one of those “twelve governments with major hydropower sectors” that in December 2015 included hydropower expansion as a goal for cutting emissions, but Canada is second only to China in its dam-building, with some 600 dams across the country by 2015.

Then in 2016, the Justin Trudeau Liberal government released its [Mid-Century Long Term Low-Greenhouse Gas Development Strategy](#), boasting that Canada would reduce carbon emissions and meet its Paris Climate targets by generating 100,000 megawatts of new hydropower.

According to esteemed scientists [J. David Hughes and David Schindler](#) (now deceased), that would mean another 118 dams (of Site C size) across the country—a plan that has received almost no mainstream media coverage at all, and which no political party leader has openly criticized.

The *Mid-Century Strategy* calls hydropower “non-greenhouse gas emitting” and states that “Interprovincial, interjurisdictional, and intercontinental cooperation will enhance integration of clean electricity generation to satisfy growing demand. Canada’s contribution towards global GHG abatement could include providing clean power to our continental neighbours, as well as clean power services to the international community.”

The *Mid-Century Strategy* further states: “The integration of electricity markets between Canada and the US includes 35 physical interconnections crossing the border and over \$2.3 billion in Canada-US electricity trade revenue. In August 2015, the US Environmental Protection Agency released the final version of the Clean Power Plan which could reduce GHG emissions from the US power sector by 32% from 2005 levels. Under certain conditions, US states can help meet their emissions reductions targets through imported clean electricity from Canada.”

President Obama’s Clean Power Plan expressly allowed states to import Canadian

hydropower, leading the North American Electric Reliability Council to predict that [Canadian power exports to the US could triple by 2030](#).

But David Schindler told *The Tyee* that the Canadian government calling hydropower “non-emitting” is completely dishonest. “In extreme cases, energy from dams can produce as much greenhouse gas as burning coal,” he said. “Some reservoirs can release methane and CO2 for more than a hundred years.”

And when you include “the emissions from building and producing materials for a dam, as well as the emissions from clearing forests and moving earth, the greenhouse gas production from hydro is expected to be about the same as burning natural gas,” said Schindler.

The proposed New England Clean Energy Connect would have supplied hydroelectric power from Québec to the New England region. Mainers voted on Tuesday, November 2 to reject the project. Image courtesy of Hydro-Québec.

The New York hydro deal

While Vermont voters provided a setback to Hydro-Québec’s (and Canada’s) big plans, another electricity export deal is moving forward.

In late September, Hydro-Québec [signed a tentative \\$20 billion deal](#) with the State of New York that would see Hydro-Québec export 10.4 terawatt-hours of electricity per year for the next 25 years, pending further approvals.

The proposed high-voltage transmission line from Québec would connect to the proposed Champlain Hudson Power Express (CHPE)—a 546 kilometer, underground and underwater line running from La Prairie, Québec to New York City, with an interconnection occurring under the Hudson River.

The Champlain Hudson Power Express project is backed by financial giant Blackstone Group through its subsidiary Transmission Developers Inc. Blackstone’s head honcho Stephen Schwarzman has been advising the Trudeau government on a variety of issues since the 2015 federal election, including free trade negotiations.

Former prime minister Brian Mulroney has been on the board of the Blackstone Group since 2007, when he was appointed along with Lord Nathaniel Rothschild, heir to the banking dynasty.

The Chairman of the Board for Transmission Developers Inc. is David Peterson, the former premier of Ontario.

The Champlain Hudson Power Express project would rely on power generated by

Hydro-Québec's highly controversial \$5 billion Romaine River complex, which is flooding 100 square kilometers of forested land.

In 2019, the environmental group Riverkeeper reversed its support for the CHPE, citing environmental and social justice issues. Similarly, in that same year three energy planners and environmentalists [wrote](#) in *The Guardian* that "...there is nothing 'clean' about hydropower. Building the CHPE would require excavating a trench down the spine of the Hudson Valley, a costly and environmentally disruptive enterprise. Construction could potentially stir up long-buried carcinogenic PCBs in the Hudson River, the nation's largest superfund site, threatening a recovery process championed by advocates for decades."

The writers also refer to the "cultural genocide" of First Nations in Québec. "Although Hydro-Québec has promised to supply NYC's municipal energy without building new dams, the city will nonetheless be investing long-term in a company that has been building a series of new dams since the late 2000s," and exposing Indigenous communities "to poisonous methylmercury directly resulting from damming rivers and flooding forests."

The North American Megadam Resistance Alliance and another organization called Save the World's Rivers have both labeled Hydro-Québec as "heavily greenwashed." At COP26, environmentalists are attempting to get emissions from hydropower included in global carbon budgets. Whether that will be possible during 12 days of negotiations is a huge question.

Canadian freelance writer Joyce Nelson is the author of seven books. She can be reached through her [personal website](#).

I am Jan Boudart, board member of Nuclear Energy Information Service. Greetings to WHEJAC and all those who planned and executed this EJ meeting.

oo

What is an environmental justice community?: (from Google) "The term describes situations where multiple factors, including both environmental and socioeconomic stressors, may act cumulatively to affect health and the environment and contribute to persistent environmental health disparities." (Google of "Environmental Justice Community Definition".)

It's important to understand that environmental justice communities live near all aspects of the U.S. fission venture from the Manhattan project through to today's upgrade of our nuclear arsenal.^{1,176} This includes communities near (1) mining,¹⁷⁷ (2) milling,^{178,5} (3) processing for the gas UF₆,^{179,180} (4) fuel fabrication and experimental activities for fuel fabrication;¹⁸¹ communities and

¹⁷⁶ https://buffalonews.com/news/local/contractors-sought-to-design-oversee-lewiston-nuclear-waste-removal/article_b2c2c4ec-2f3f-11eb-9013-17727dfa6bb2.html

¹⁷⁷ <https://www.nhnews.com/news/2021/may/11/advocate-leona-morgan-works-influence-un-represent/>. "In the Southwest we know that uranium kills"

¹⁷⁸ <https://www.vox.com/21514587/navajo-nation-new-mexico-radioactive-uranium-spill> ⁵

Number 2 of top 10 worst nuclear disasters: Church Rock Uranium Mill the "American Chernobyl"

July 16th, 1979: the state of New Mexico experiences one of its worst manmade accidents of all time. (**Most of residents in the area were members of the Navajo tribe.**) When the disposal pond at the Church Rock Uranium Mill flowed over the dam, more than 1,000 tons of radioactive material and 93 million gallons of acidic, radioactive tailings poured into the Puerco River. The radioactive waste & material along with the acidic tailings traveled nearly 100 miles down river. It affected many residents of the area, all of whom depended upon the river for their livestock, irrigation, & other daily uses. They were initially unaware of the accident & continued to use the contaminated water in various capacities. **At least 1,700 people lost access to water after the incident. When Navajo leaders appealed to Governor Bruce King for disaster assistance, they were denied; thus limiting the resources available to deal with the problem. Experts told the Navajo nation that these health effects would be minimal as long as they did not depend on their livestock for food. Many of the residents in the contaminated area, however, did rely on their livestock. According to a report, the Navajo nation members were diagnosed with cancer at a rate much higher than other demographics; an effect that many experts attribute to this Church Rock Uranium Mill disaster.**

¹⁷⁹ <https://firstsecretcity.com>

¹⁸⁰ "In the early hours of Dec. 22, 2003, the plant (Honeywell plant Metropolis IL) inadvertently released seven pounds of uranium hexafluoride (UF₆). The accident prompted the immediate evacuation of nearby residents. News reports issued at the time said no one was hurt, but four or five residents were sent to the hospital for observation."

¹⁸¹ <http://nukewatchinfo.org/contaminated-middle-school-indefinitely-closed-in-ohio/>. The scandal referred to in this article referenced the process for "enriching" uranium by picking out U₂₃₅ (0.5%) from U₂₃₈ (90%) in batches of UF₆. The transuranics Neptunium and Americium have not been found in nature on earth since before humans.

U.S. military personnel victimized by so-called Depleted Uranium¹⁸² (which is obfuscating jargon)

¹ <https://bloom.bg/2xfoFoW>

¹⁸² <https://www.sasapost.com/the-endless-war-iraqs-heavy-legacy-of-depleted-uranium/>

for U238₁₀, a non fissionable isotope that steadily releases ionizing radiation in the form of alpha, beta, and gamma rays and forms hot particles in ground dust and in the air). Military personnel are further exposed to Uranium 238 in tank bodies and ordnance exploded near them in ground battles. (See footnote 9)

Among fissioning activities are included merchant, military and experimental reactors and those used to produce medical isotopes. Refueling activity at reactors requires about 1000 contractors from all over the nation. Local jurisdictions had no say, during COVID, as to whether these people hosted in their mostly small communities and ate in the restaurants and bars. The draconian rules that resulted were, well ... draconian.^{11,12}

EJ communities victimized by the U.S. fission venture also involve waste installations, ...(Pause) including waste from the military explosions¹³ dating back to WWII in both the U.S. and the former USSR, experimental reactors,¹⁴ and merchant electric power plants that exploit fission to produce heat. This radioactive waste includes military Low-level nuclear waste, Greater than Class C waste, the gloves, booties and hazmat suits, debris and irradiated metals from the discarded reactor vessel when Merchant plants close and HLRW (high-level

¹⁰ <https://en.wikipedia.org/wiki/Uranium-238>

¹¹ See attachment: 201020DK-TJL-PGPrsRIsWithRecomendations.pdf

¹² <https://www.nrc.gov/docs/ML2008/ML20087P237.pdf>. “a statement that the licensee has established alternative controls for the management of fatigue during the period of the exemption and that at a minimum, the controls ensure that for individuals subject to these alternative controls:

“(1) not more than 16 work-hours in any 24-hour period and not more than 86 work-hours in any 7-day period, **excluding shift turnover (a very time-consuming process, jb)**;

“(2) a minimum 10-hour break is provided between successive work periods; (3) 12-hour shifts are limited to not more than 14 consecutive days;

“(4) a minimum of 6-days off are provided in any 30-day period; and

“(5) requirements are established for behavioral observation and self-declaration during the period of the exemption.”

¹³ from attachment 2, page 2: “The toxic legacies of the global nuclear weapons complex—from uranium mining and milling, to weapons production and testing—have been global in reach, from Kyrgyzstan to the Marshall Islands to the Navajo Nation and Alaska [1,8]. Radioactive contamination of civilian populations in the U.S. (and globally) began with above-ground nuclear weapons tests at the Nevada Test Site (NTS) in 1951 producing the first “downwinders”—unprotected civilian populations exposed to nuclear fallout [9]. (Prior to surface testing in the U.S., there was an extensive testing program in the U.S. Marshall Islands, and thousands of Pacific Islanders were displaced and suffered radiation exposure (see [1]). Entire islands were vaporized by hydrogen bombs and islanders, decades later, remain displaced from home islands too contaminated to occupy. Today, those living near contaminated sites making up the U.S. weapons complex continue to be exposed to environmental health risks relating to radiation and related chemical contaminants [10]. The fact that many of those exposed to U.S. (and international) nuclear weapons production and testing are colonized indigenous groups and racialized minorities, raises clear environmental justice concerns [1]. The geographical scale and costs of the U.S. nuclear industrial complex exceeds virtually that of any other industrial sector (estimates place the total costs over 60 years of producing weapons grade materials, manufacturing, testing, maintaining, and decommissioning some 70,000 nuclear weapons at approximately \$7.5 trillion as of 2005 (p. 47 [11]). The weapons complex also occupies (and contaminates) 36,000 square miles of the U.S., much of it federal sites on public lands in proximity to Indian reservations and other population centers [12]. “

¹⁴ Kate Brown 2013, *Plutopia: Nuclear Families, Atomic Cities, and the Great Soviet and American Plutonium Disasters*, ISBN 978-0-19-985576-6; 978-0-19-023310-5

radioactive waste), such as spent radioactive fuel (SRF). [we have 11 active merchant reactors in Illinois (4 Fuk-style reactors), almost 100, (some are Mark I or II, the same design as Fukushima) nationwide. Brown's Ferry Units 1 and 2 are Mark I or II reactors and are presently applying for an extension on their license thru the TVA.¹⁸³]

For an understanding of the evacuation zones for these reactors in case of an accident refer to the Chernobyl and Fukushima disasters. Yet there are plans for new projects in so-called **small** (they aren't small) **modular nuclear reactors**. But their emergency zones have been reduced to the area occupied by the reactor itself, if they are ever built, on the theory that an accident is a noncredible event. Pending¹⁸⁴

So there are lots of radiation environmental justice communities and they are becoming more numerous as we continue the folly of pursuing radioactive methods to produce the energy we have become addicted to. In addition, we continue our addiction to the idea that technology in the same direction will solve the looming need for more and more energy.

But we need to change our focus away from technology and pour our resources into those environmental justice populations. Nuclear technology and engineering got us this far and it's not a pretty picture.

Recommendations: Advise against subsidizing failing nuclear businesses that spread radioactive contamination in their areas. Do not accept EIS analyses that restrict emergency zones that are confined to the footprint of nuclear installations. Advise against the Uranium Reserve program in the DOE because it resurrects cold war activities. Even today, the Manhattan project has not been cleaned up.

Thank you for this opportunity to speak.

¹⁸³ Conversation 2021-11-11 with Don Safer

¹⁸⁴ This rule making has been delayed and is known as 10 CFR Part 53. 10CFR is the Code of Federal Regulations devoted to energy codes, and Part 53 is in process. (Same conversation as cited in footnote 15.)

Fact Sheet

Landfills in NC and Environmental Justice

By Ryke Longest, Clinical Professor of Law

Regulation of Solid and Hazardous Waste Background:

North Carolina has long been delegated by USEPA to administer a hazardous waste program under the provisions of the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act. Siting of solid and hazardous waste landfills in North Carolina is governed by the minimum regulations promulgated by USEPA and incorporated by reference in NC rules. It is also governed by more stringent and specific statutes and related rules for certain situations. These statutes and rules must be read in terms of preventing recurrence of the Warren County PCB landfill, which was approved by USEPA before the State of NC had more stringent siting standards. The Warren County landfill leaked PCBs into groundwater and created an environmental injustice. North Carolina's General Statutes and Rules have been amended since the Warren County PCB Landfill was detoxified at taxpayer expense to reduce the chances of recurrence. In particular, provisions in N.C.G.S. § 130A-294(c)(9) requires consideration of cumulative impacts of facilities and provide basis for denying permits when issuing the permit "would have a disproportionate adverse impact on a minority or low income community protected by Title VI of the Civil Rights Act of 1964." In addition, hazardous wastes are subject to state minimum standards which exceed federal minimums and would have disqualified the Warren County PCB proposal had they been in place at the time. See N.C.G.S. § 130A-294(h).

Solid Waste Facilities and Landfills and Environmental Justice in NC: Examples

- A) Drive through the town of Badin, North Carolina, and it's impossible to miss the AlcoaBadin Works Plant. But there's something that cannot be seen – hundreds of thousands of cubic yards of hazardous waste dumped by Alcoa during its time of production and buried under a layer of soil. Our Clinic's review of 30+ years of studies by Alcoa, the company that operated Alcoa-Badin Works from 1917 to 2010. At Alcoa-Badin Works, unpermitted dumps adjoining the plant and the West Badin community, de jure segregated until the 1960s from white community of East Badin. These dumps contain a mixture of solid and hazardous wastes, the largest hazardous waste of concern by volume is spent potliner. It's a by-product of aluminum smelting, listed by EPA as such under the label K088 due to dozens of chemicals shown to be hazardous. Safe disposal of spent potliner waste requires special landfills that are lined, dry, and well-sealed. None of Alcoa's dump sites had any safety measures to classify them as hazardous waste landfills. What this means is that currently, a unknown amount of spent potliner waste up to 40 feet thick sits in unlined dump sites around Badin. Aware of these problematic dump sites, Alcoa covered these areas with soil caps in the mid-1990s to prevent infiltration. In letters to the NCDEQ, Alcoa stated these "interim measures" were successful at preventing spent potliner from leaching into Badin Lake and surrounding waterways. NC DEQ has yet to take action requiring Alcoa to remove

these buried hazardous wastes and has negotiated a series of special orders allowing Alcoa exceptions to water quality rules for discharges from the plant sit.

B) Sampson County Landfill:

The Sampson County Disposal Landfill is not a municipal facility, but is privately owned and operated by the Canadian company, GFL Environmental Inc. It was built in the community of Snow Hill, NC. Within a three-mile radius, 49% of the population are BIPOC per EJVIEW. The landfill takes in trash and construction debris from all over the state, including from cities like Durham. Our Clinic has been working to reduce plastic debris in Durham in part to reduce environmental injustice the community through the high volume of single use plastic garbage exported there from the City of Medicine. Local residents have worked with Dr. Countney Woods from UNC-CH to [document](#) conditions in the creek which adjoins the landfill, finding PFAS compounds in the water. In turn Sherri White Williamson recently co-founded the Environmental Justice Community Action Network (EJCAN), an organization dedicated to creating a cleaner, healthier and more sustainable environment, one community at a time. EJCAN is currently working on projects in Sampson County, NC where she calls home. They are helping to connect residents with well water testing to look for impacts from the landfill and the other pollution sources in the county-animal waste.

C) Rogers-Eubanks Community impacts from former Orange County Landfill

At the southwestern corner of the Triangle sits the community known as RogersEubanks. The Historic [Rogers Road](#) between Chapel Hill and Carrboro covers about $\frac{3}{4}$ of a square mile, the historic character of the community consists of black-owned family farms and sawmills alongside surrounding forest. From 1972 through 2013, the Orange County Regional Landfill was sited adjacent to the Rogers Road Community, leading over time to adverse environmental and health impacts. The Rogers-Eubanks Coalition to End Environmental Racism was established in 2007 to advocate for environmental justice. Progress has not been easy. But in 2013, the Orange County Board voted to close the landfill. Community members from the Coalition got to help lock the gates.

D) NCDEQ Environmental Justice Snapshots and Reports: Since 2018, NCDEQ began issuing EJ Snapshots and EJ Reports about new permits and related facilities. EJ Snapshots can lead to EJ Reports and provide some information to community members about the demographics around a two mile radius from the site under review. But the NCDEQ does not appear to be using the EP Snapshots or the longer EJ Reports to deny permits based on disproportionate impacts to EJ communities. Rather they report the information as part of the record of the project permit decision only. For an example see: <https://deq.nc.gov/media/13487/download> . The conclusion of this snapshot was the permittee should conduct a community meeting and that the NC DEQ should conduct outreach to the Lumbee community. Some of these snapshots and reports have been incorporated into EJ Impact Statements submitted to the US EPA Office of Civil Rights, especially those dealing with coal ash disposal projects.



OFFICE OF THE MAYOR
THE CITY OF NEW YORK

DEAN FULEIHAN
FIRST DEPUTY MAYOR

April 19, 2021

Ms. Doreen Harris
President and Chief Executive Officer
New York State Energy Research and Development Authority
17 Columbia Circle
Albany, New York 12203-6399

Re: Clean Energy Standard Joint REC Purchase by the City of New York Dear Ms.

Harris:

The purpose of this letter is to advise you that the City of New York (the “City”) is committed to pursuing a joint or concurrent purchase with the New York State Energy Research and Development Authority (“NYSERDA”) of Clean Energy Standard Renewable Energy Certificates (“RECs”) associated with the delivery of renewable energy into Zone J of the New York Control Area. It is the City’s belief that a Joint Purchase will provide additional value to disadvantaged and energy burden communities as well as all residents of the State. This letter describes some of the parameters the City will take into consideration prior to entering into a longterm agreement to purchase such RECs.

Through the Renewable Portfolio Standard and the Clean Energy Standard, and more recently via the Climate Leadership and Community Protection Act, the State has established a bold policy for transforming our economy and the manner in which electricity is produced and delivered to customers in New York. Concurrently, through OneNYC 2050, Mayor Bill de Blasio has set ambitious and aggressive goals for confronting our climate crisis, ending the age of fossil fuels, and securing a livable climate for the next generation. We believe State and City policies are fully aligned on the need to replace the existing in-City fossil generation fleet with renewable resources, and the deliverability of renewable energy into the city is an important step in doing so.

According to forecasts prepared by the New York Independent System Operator, Inc., electricity demand in New York City is expected to gradually increase over the next 30 years from about 11,300 MW to almost 12,800 MW. Because of transmission constraints and local reliability

requirements, approximately 80% of that demand must be satisfied by generation resources located within New York City. The value of renewable energy delivered to the city will be enhanced if the resources selected are capable of satisfying local reliability requirements and reducing reliance on the in-City fossil generation fleet.

The City's current thinking is that it would participate in the joint purchase of RECs in the following manner:

1. NYSERDA completes the ongoing solicitation process and evaluates all of the proposals received.
2. NYSERDA selects one or more projects to be awarded.
3. NYSERDA provides details regarding the selected projects, including its evaluation of the underlying proposals, to the City.
4. The City reviews the information provided to determine whether and to what extent the projects will help achieve the City's goals and satisfy the needs discussed above in a cost-effective manner.
5. The City advises NYSERDA its willingness to enter into a long-term agreement with NYSERDA for the purchase of RECs from one or more selected projects, as designated by the City and on terms to be discussed. In particular, the City would expect to pay the same price per REC as set forth in the contract(s) between NYSERDA and the developer(s) plus NYSERDA's administrative costs customarily included in all of its REC sales to load-serving entities.

The City's intent is to purchase a sufficient quantity of RECs that would allow it to achieve its goal of securing 100% of its energy needs from renewable resources while preserving the ability to engage in deep energy retrofits, other energy efficiency measures and the deployment of renewable distributed energy resources. The City's current annual consumption is around 4 terawatt hours. We would expect to purchase at least enough RECs to cover about 80 percent of this consumption. However, especially because of the effects of the COVID pandemic on the New York City economy, the City must consider costs and its determination of REC purchases will necessarily be based in part on the cost of the RECs.

Other important considerations for the City include:

1. For the reasons set forth above, the City is interested only in RECs associated with renewable resources that are delivered into New York City and which lessen the need for the in-City fossil generation fleet.
2. New generation and transmission resources that create or exacerbate negative impacts on environmental justice communities will not be considered by the City. Further, the degree to which the project(s) will directly contribute to local air quality improvements and provide other localized benefits must be evaluated and considered in selecting project(s).

3. The City commends NYSERDA for requiring that hydropower credited under Tier 4 is additional to historical production, and for ensuring that new hydropower impoundments are ineligible under Tier 4. Nevertheless, to the extent the selected project(s) involve Canadian hydropower resources, the City will continue to prioritize actions that respect the rights of First Nations and their ancestral territories. The City would reserve the right throughout the term of an agreement with NYSERDA to terminate the continued purchase of RECs associated with Canadian hydropower and, to the extent available, substitute other RECs that meet the criteria herein (such as ORECs) if any new developments intrude into or interfere with First Nations' communities and lands without the affected communities' free and informed consent at any time during the term of the agreement between the City and NYSERDA.
4. As noted above, the City plans to continue to reduce its energy usage via robust energy efficiency measures. Any contractual agreement for RECs cannot inhibit or restrict these efforts but would serve as a necessary complement to its continued robust investment in energy conservation.
5. The City has not determined a specific duration for any long-term commitment to purchase RECs but would not want it to exceed the term of any contract between NYSERDA and an awardee. The term of the commitment would be determined based on all of the foregoing factors and as part of any contract negotiations with NYSERDA or a NYSERDA counterparty.

The Public Service Commission's decision to establish components of the Clean Energy Standard that will deliver renewable energy into the city was a major step towards achievement of the concurrent State and City policies and rectify the current disparity in accessibility of renewable energy between upstate and downstate New York. Furthermore, it will catalyze the City's electrification of building heating and hot water and its commitment to end natural gas connections. While any contractual obligation for the purchase of RECs would arise only upon execution of a definitive agreement and receipt of all requisite approvals for that agreement, the City is committed to pursuing a joint purchase within the next few months and to working with NYSERDA on implementing and securing cost-effective renewable resources that would directly benefit New York City residents and reduce reliance on the in-city fleet of heavily polluting, inefficient, fossil-fueled generating facilities.

Sincerely,

Dean Fuleihan





By electronic mail

November 8, 2021

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Re: Complaint under Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, regarding

I. Introduction

The disparate adverse environmental impacts imposed on communities of color are among a swath of unjust disparities impacting nearly every facet of Black and Brown life across the United States. While each of these disparities has a history of its own, nearly all share roots in generations of racialized actions and inactions never fully rectified by those in power. In failing to confront the true lasting impacts centuries of discrimination have had on communities of color, governments and industries across the United States have been permitted to rely instead on the guise of ostensibly facially race-neutral laws and policies that perpetuate the entrenched legacy of the openly discriminatory actions of times past.¹⁸⁵

Since springing into the national consciousness in the 1980s, the environmental justice movement has compelled federal, state, and local governments to examine how environmental laws and regulations may result in communities of color continuing to bear a disproportionate burden of environmental risks. The start of the environmental justice movement is often pinned at Warren County, North Carolina, where in 1982 residents protested the state's decision to locate a hazardous waste landfill in a predominantly Black and low-income community. However, it was from the civil rights movement of the 1960s that the modern environmental justice movement drew its core principles. At the heart of the environmental justice movement is a firm dedication to rectifying the inequitable distribution of burdens and benefits based on race, a practice that Martin Luther King addressed in his 1967 book, *Where Do We Go from Here*, in a passage that remains hauntingly prescient today:

When the Constitution was written, a strange formula to determine taxes and representation declared that the Negro was sixty percent of a person. Today another curious formula seems to declare he is fifty percent of a person. Of the good things in life,

¹⁸⁵ For comprehensive works on the discriminatory use of facially race-neutral laws see Robert Bullard, *Unequal Protection: Environmental Justice and Communities of Color* (1994) (environmental law). Michelle Alexander, *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*. (2010) (criminal law). Richard Rothstein, *The Color of Law* (2018) (housing law).

the Negro has approximately one half those of whites. Of the bad things of life, he has twice those of whites.¹⁸⁶

Environmental justice confronts these inequities within the context of environmental laws, policies, and practices. The United States Environmental Protection Agency has defined environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, or national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”¹⁸⁷ The concept of “fair treatment” in the context of the development, implementation, and enforcement of environmental laws means that “no group of people, including racial, ethnic, or socio-economic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, or commercial operations or the execution of federal, state, local and tribal programs and policies.”¹⁸⁸

While today’s laws can no longer expressly codify racial segregation and unequal treatment, racial inequities continue to be reinforced through seemingly race neutral means. Confronting these inequities requires consciously addressing our nation’s deeply embedded system of racial hierarchy. As noted by environmental justice scholar and activist Dr. Robert Bullard:

The laws that codify racial segregation have been eradicated but the practices continue today, which is why you get refineries, chemical plants and landfills disproportionately in communities of color...The only way to reverse that is to change the idea that communities of color are dumping grounds for pollution.⁵

Across the country, race remains a dominant indicator for exposure to environmental pollutants. Air pollutants are no exception. For particulate matter emissions $\leq 2.5 \mu\text{m}$ in diameter (PM2.5) and those $\leq 10 \mu\text{m}$ in diameter (PM10), Black Americans bear a

¹⁸⁶ King, Martin Luther, *Where Do We Go from Here: Chaos or Community?* (1967).

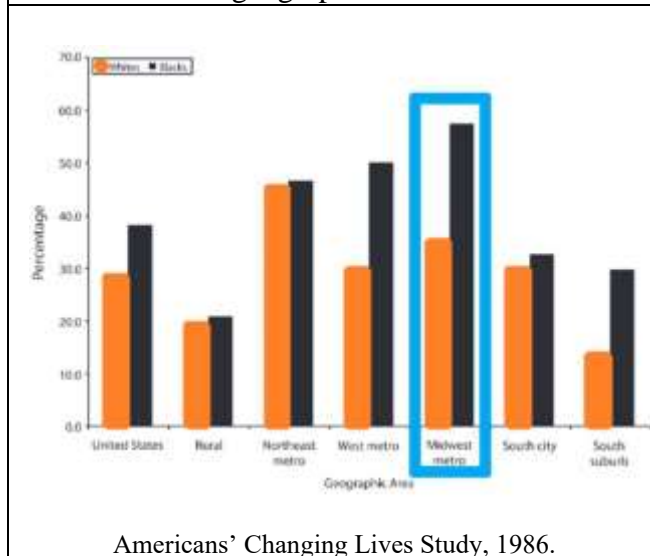
¹⁸⁷ U.S. EPA, Environmental Justice, <https://www.epa.gov/environmentaljustice> (last visited November 8, 2021)

¹⁸⁸ Robert Bullard, Paul Mohai, Robin Saha, and Beverly Wright, *Toxic Wastes and Race at Twenty: 1987 - 2007: A Report Prepared for the United Church of Christ Justice & Witness Ministries, United Church of Christ* (2007), <https://www.nrdc.org/sites/default/files/toxic-wastes-and-race-at-twenty-1987-2007.pdf> ⁵ Oliver Milman, Robert Bullard: ‘Environmental justice isn’t just slang, it’s real’, *The Guardian* (2018), <https://www.theguardian.com/commentisfree/2018/dec/20/robert-bullard-interview-environmentaljustice-civil-rights-movement> (last visited November 8, 2021).

burden 1.5 times higher than the population as a whole and 1.8 times higher than whites.¹⁸⁹

The decisions by Michigan's Department of Environment, Great Lakes, and Energy (“EGLE”) allowing Stellantis to significantly expand its facilities continues the discriminatory legacy of requiring communities of color to bear the disproportionate burden of the industrial pollution generated by all of society. Unfortunately, the Stellantis Complex (“Facility”) does not exist in isolation. While racial disparities exist across the country, nowhere are the air pollution burdens on communities of color more disparate than the Midwest.¹⁹⁰ One third of the 15 states where Black exposure to PM2.5 is highest are located along the Great Lakes.¹⁹¹ Michigan is one of them.

Figure 1- Percentage of people living within 1 mile of polluting industrial facility by race and geographic area.



At the same time, the decisions continue our nation’s long legacy of discriminatory displacement of Black communities against their will.

The Black community of Beniteau in Detroit, Michigan seeks recognition of the discriminatory harms imposed on their community through actions taken by the State of Michigan’s Department of Environment, Great Lakes, and Energy, to seek an end to those harms, and to step towards their rectification. Specifically, the Complainants detail the following:

¹⁸⁹ Ihab Mikati, Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status, American Journal of Public Health vol. 108 (2018).

¹⁹⁰ Mohai, Paul et al., Racial and Socioeconomic Disparities in Residential Proximity to Polluting Industrial Facilities: Evidence from The Americans' Changing Lives Study. American Journal of Public Health Vol. 99, Suppl 3 (2009).

¹⁹¹ Christopher Tessum et al., Pm2.5 Polluters Disproportionately and Systemically Affect People of Color in The United States. Sci Adv Vol 7, Issue 18 (2021).

- EGLE’s decisions to approve permits regarding Stellantis Complex facilities, which permit increases in air emissions in a disparately impacted community of color, violates 40 C.F.R. Part 7.
- EGLE’s failure to perform cumulative impact analyses under Rule 228 as has subjected resident to an adverse disparate impact and preserves a pattern or practice of discrimination on the basis of race, color, and national origin in violation of 40 C.F.R. Part 7.

II. Complainants

Complainants Victoria Thomas, Robert Shobe, Tanisha Burton, Akishia Hunter, and Binh Phung have primary residences on Beniteau Street in Detroit, Michigan. Their homes lie immediately west of the Mack Assembly Plant. Each complainant self identifies as a person of color and has experienced numerous ill effects as a result of EGLE’s decisions. Informed by the impacts these decisions have had on their own lives and those of their loved ones, each is deeply concerned about the increased adverse health impacts being seen across their community.

III. Factual Background

A. History of Mack Avenue and Jefferson North Assembly Plants

Located at 2101 Conner Avenue in Detroit, Stellantis’ Jefferson North Assembly Plant (JNAP) currently produces large SUVs; the Jeep Grand Cherokee, Jeep Grand Cherokee SRT, and Dodge Durango. Immediately to the north of the JNAP at 4000 St. Jean Avenue is another Stellantis facility, the Mack Avenue Assembly Plant.

Built in 1916 by the Michigan Stamping Company, the original six-story Mack facility was located between St. Jean Street and Conner Avenue.¹⁹² It had been built atop Conner Creek, a waterway tributary to the Great Lakes once vital to the indigenous Anishinaabe.¹⁹³ From 1923 on, “Old Mack” became entwined with the precursors to the

FCA/ Stellantis name. At the time, ownership of the plant was maintained by the Briggs

¹⁹² AllPar, Chrysler's Mack Avenue Engine Plants (Formerly Stamping Plant), <https://www.allpar.com/threads/chrysler%E2%80%99s-mack-avenue-engine-plants-formerly-stampingplant.229392/> (last visited November 8, 2021).

¹⁹³ Sergey Kadinsky, Conner Creek, Detroit <https://hiddenwatersblog.wordpress.com/2016/06/14/connercreek-detroit/> (last visited November 8, 2021).

Manufacturing Company, which produced Plymouth bodies for Chrysler Corporation, until their eventual purchase of the plant in 1953.¹⁹⁴ The 33-acre site continued to produce automobile body parts and frames until 1979, when Chrysler closed the plant.¹⁹⁵

In December of 1982, as the plant sat vacant, the City of Detroit purchased it.¹⁹⁶ Idle, the site quickly devolved into a brownfield contaminated by hazardous industrial toxins threatening the health of nearby residents, including polychlorinated biphenyls (PCBs) and asbestos.¹⁴ Hosting millions of pounds of contaminated materials, it sat for over 10 years to further degrade while remaining surrounded by residential housing.

In August of 1989, civil penalties totaling \$264,000 were levied by the EPA against the City of Detroit regarding violations of the Toxic Substances Control Act and PCB regulations.¹⁹⁷ EPA mandated cleanup of the site began in 1990.¹⁹⁸ Contamination at the site was extensive. In the end, the site was demolished and cleanup required the removal of:

- Ten million pounds of PCB-contaminated debris, concrete, and equipment
- Eleven million gallons of contaminated water
- One and half million pounds of asbestos-containing materials including 15 miles of asbestos-covered pipe and 87,000 square feet of asbestos floor tiles
- Enough scrap metal to build 20,000 cars.¹⁹⁹

Stellantis' presence along Jefferson Avenue shared a similar trajectory. The assembly plant was first built on the South side of Jefferson by Chalmers Motor Company in

¹⁹⁴ AllPar, Briggs Body Plants and Chrysler, <https://www.allpar.com/threads/briggs-body-plants-andchrysler.229393/> (last visited November 8, 2021).

¹⁹⁵ Id.

¹⁹⁶ Id.

¹⁴ Id.

¹⁹⁷ In re Detroit, Doc. TSCA-V-C-82-87 (U.S. EPA Aug. 18, 1989)

[https://yosemite.epa.gov/oarm/alj/alj_web_docket.nsf/Dockets%20by%20Year%20Filed/87B01EFDFABF329985257FBC00702143/\\$File/city_of_detroit_tsca_jones_082589.pdf](https://yosemite.epa.gov/oarm/alj/alj_web_docket.nsf/Dockets%20by%20Year%20Filed/87B01EFDFABF329985257FBC00702143/$File/city_of_detroit_tsca_jones_082589.pdf).

¹⁹⁸ U.S. EPA Superfund Program, CERCLIS Database: Old Mack Ave Stamping Plant (released through FOIA).

¹⁹⁹ Automotive Intelligence, Chrysler's Mack Avenue Engine Plant History (1999)

https://www.autointell.com/nao_companies/daimlerchrysler/dc-manufacturing/chrysler-mfg-mack-ave03.htm.

1908.²⁰⁰ In 1925, two years after purchasing “Old Mack,” Chrysler became its new owner.²⁰¹ In 1927, the company also purchased the American Motor Body Company, its plant located directly north across Jefferson Avenue.²⁰² “The Chrysler plant straddled Jefferson Avenue. The Kercheval body shop was on the north side of the street and the Jefferson engine manufacturing and car assembly plant was on the south side. The bodies came across Jefferson Avenue in an enclosed overhead conveyor.”²⁰³

In 1982, 3 years after its closure of Old Mack, at least “23 residential blocks to the west of the original Chrysler-Chalmers plant were condemned and annexed to the site,” several of which were cleared of homes and their residents only to be “replaced by open space that can only be described as ornamental... Outside the plant boundaries, empty lawns and gently meandering sidewalks leading nowhere indicate that the demolished neighborhoods were needed simply to provide a landscape ornament and security buffer for the plant.”²⁰⁴ The plant was closed in 1990 and demolished one year later.

Construction on the current Stellantis Complex began that same year. The city spent \$264 million to “acquire and clear more land for the new plant. That required tearing down buildings, small factories, and houses for blocks around, then cleaning the land of toxic industrial waste.”²⁰⁵ In total, roughly 380 acres of property were purchased or condemned by the City of Detroit and transferred to Chrysler, a move Michigan’s 1st District Court of Appeals called “unconscionable.”²⁰⁶ Citing precedent, however, the court refused to stop it.

²⁰⁰ Brent D. Ryan, *Autopia’s End: The Decline and Fall of Detroit’s Automotive Manufacturing Landscape*. *Journal of Planning History* 12, no. 2 (2013) (author’s final manuscript).

²⁰¹ *Id.*

²⁰² Stellantis North America, *New assembly plant rises on auto industry historic terrain*, <https://blog.stellantisnorthamerica.com/2019/11/06/new-assembly-plant-rises-on-auto-industry-historicterrain/> (last visited November 8, 2021).

²⁰³ AllPar, *Chrysler's Jefferson Avenue Plants*, <https://www.allpar.com/threads/chrysler%E2%80%99sjefferson-avenue-plants.229390/> (last visited November 8, 2021).

²⁰⁴ Ryan, *supra*, at 12.

²⁰⁵ Ryan, *supra*, at 11.

²⁰⁶ *Detroit v. Vavro*, 177 Mich. App. 682, 684 (1989)

Again, in 2019, with Stellantis seeking to expand the Complex further, the city went to work, acquiring 215 acres of land at an expense of over 100 million dollars and swapping a total of 155 acres of publicly owned land as part of the deal.²⁰⁷

B. Recent Air Quality Permits Regarding Mack Avenue and Jefferson North Assembly Plants

Over the past several years, EGLE has issued Stellantis several permits to install, authorizing the Company to undertake a significant expansion of its auto assembly operations at the Stellantis Complex. At issue in this Complaint are a series of permits issued by EGLE regarding Stellantis' Mack Avenue Assembly Plant and its Jefferson North Assembly Plant.

- Permit to Install 14-19
 - Facility: Mack Avenue Assembly Plant
 - Date Issued: 4/26/19
 - Description: Authorized Stellantis to develop the Mack Avenue Assembly Plant, which replaced the Mack Avenue Engine Plant
- Permit to Install 14-19A
 - Facility: Mack Avenue Assembly Plant
 - Date Issued: 10/30/20
 - Description: Authorized changes to combustion equipment and updated toxic air contaminant modeling
- Permit to Install 33-20
 - Facility: Jefferson North Assembly Plant
 - Date Issued: 5/12/21
 - Description: Authorized Stellantis to undertake a sustainment program, including the reactivation of an additional paint line which had been inoperable for several years.

The permits described above authorized emissions increases for several criteria pollutants. These emissions will be in addition to the existing air pollution emissions from the Jefferson North Assembly Plant.

²⁰⁷ Nora Naughton, Detroit acquires nearly 215 acres of land for FCA plant, The Detroit News, May 3, 2019, <https://www.detroitnews.com/story/news/local/detroit-city/2019/05/03/detroit-officials-announce-landdeals-fca-plant/1090684001/>.

Table 1 - Actual 2019 Emissions from Stellantis Jefferson North Assembly Plant along with Potential to Emit Provided in Permit Applications Regarding Permits to Install 14-19A and 33-20

	Potential to Emit - Stellantis Permits to Install ²⁰⁸		Actual Emissions 2019 ²⁰⁹
	Permit to Install - 14-19, 14-19A (tons per year)	Permit to Install - 3320 (tons per year)	Jefferson North Assembly Plant - 2019 Emissions (tons per year)
VOC	382	22	790
NOx	37	19	57
CO	82	42	4
PM10/2.5	5	4	32
SO2	0.55	0.31	0.4

Since Permit to Install 14-19/14-19A was considered a major modification regarding ozone pollution in an ozone nonattainment area, Stellantis was required to offset its increase in volatile organic compound emissions with a corresponding decrease in the same nonattainment area.²⁸ In this instance, Stellantis offset its increase in volatile organic compound emissions at its Mack Avenue Assembly Plant with a decrease in volatile organic compound emissions at its Warren Truck Assembly Plant in Warren, Michigan. According to EJSCREEN, 52% of the people living within 1-mile of the

²⁰⁸ FCA US LLC, Application Permit to Install Amendment: Detroit Assembly Complex - Mack (Apr. 2020), Appendix 1; FCA US LLC, Application for Permit to Install - Jefferson North Assembly Plant Sustainment Project (Mar. 2020), Appendix 2.

²⁰⁹ Michigan Air Emissions Reporting System, Annual Pollutant Totals Query Results - Chrysler Jefferson North Assembly Plant (2019), Appendix 3. ²⁸ Mich. Admin. Code, R 336.2908(5).

Warren Truck Assembly Plant are people of color while 98% of the people living within 1-mile of the Stellantis Complex are people of color.²⁹

In addition to the criteria pollutant emissions described above, the expansions authorized by Permits to Install 14-19A and 33-20 permit the emission of a number of toxic air contaminants.

Table 2 - Maximum Ambient Impact Resulting from Toxic Air Contaminant Emissions Regarding Permits to Install 14-19 and 33-20		
	Maximum Ambient Impact - 14-19, 14-19A (ug/m3) ³⁰	Maximum Ambient Impact - Permit to Install 33-20 (ug/m3) ³¹
Formaldehyde	0.058	0.005
Cumene	0.023	0.020
Ethylbenzene	0.1	0.091

These emissions will be in addition to the existing toxic air contaminant emissions from the Jefferson North Assembly Plant. According to the Toxic Release Inventory, in 2020 the Jefferson North Assembly Plant emitted 19,249 pounds of ethylbenzene and 2,398 pounds of cumene.³²

C. Demographics of Surrounding Community

Surrounding these facilities are a slew of communities and the respective neighborhoods to which they belong. Located along a slim 3,200-foot-wide industrial zone, they are surrounded on three sides by residential housing. The sheer density of residential housing within the 1-mile radius around the facilities makes for an average population density of 2,681 individuals per square mile, over fifteen times the state

²⁹ EJSCREEN Report (2020) Appendix 6.

³⁰ FCA US LLC, Application Permit to Install Amendment: Detroit Assembly Complex - Mack (Apr. 2020), Appendix 1;

³¹ FCA US LLC, Application for Permit to Install - Jefferson North Assembly Plant Sustainment Project (Mar. 2020), Appendix 2.

³² U.S. EPA, TRI Search Plus Data Download - FCA US Jefferson North Assembly Plant, Appendix 4.

average population density.²¹⁰ Nine census tracts, totaling 5.5 square miles, immediately border the tract on which these facilities are located.²¹¹ 17,500 people live within these tracts.²¹² 5,230 are children under the age of 18.²¹³

Child poverty is over three times that of the state population at a staggering 68.6%.³⁷ 92.3% of students are eligible for free or reduced-price lunches, almost double the rate of Michigan as a whole.²¹⁴ 81% of households on household incomes of \$50,000, with a per capita income of \$12,184.²¹⁵

The racial makeup of each neighboring census tract ranges from 92% to 99.7% Black.⁴⁰ These tracts help form the 2.5-mile buffer safeguarding those outside of Detroit's Eastern border with neighboring Grosse Pointe (largely blue area in Figure 2) regarded one of the most racially and economically segregated borders in the United States.²¹⁶

EJSCREEN demographic data (Figure 3) provides further context for assessing the demography of the

surrounding community. Utilizing census

Figure 2 – Racial Dot Map of Area Around Stellantis Facilities Using 2010 Census Data



Each dot corresponds to a single person with race delineated by color of the dot. Symbols added to delineate location of Facilities.

Image Copyright, 2013, Weldon Cooper Center for Public Service, Rector and Visitors of the University of Virginia (Dustin A. Cable, creator)

²¹⁰ U.S. Census Bureau, American Community Survey 2014-2018. Retrieved from EPA EJSCREEN ACS Summary Report. Appendix 5; U.S. Census Bureau, Census of Population and Housing, <https://www.census.gov/quickfacts/fact/table/MI,US/POP060210#POP060210>.

²¹¹ U.S. Census Bureau (2018). American Community Survey 5-year estimates. Retrieved from State of the Detroit Child Profile page for FCA 3 <https://sdc.datadrivendetroit.org/custom-profiles/fca-3/>

²¹² Id.

²¹³ Id.

³⁷ Id.

²¹⁴ U.S. Census Bureau (2018). American Community Survey 5-year estimates. Retrieved from State of the Detroit Child Profile page for FCA 3, <https://sdc.datadrivendetroit.org/custom-profiles/fca-3/>

²¹⁵ id.

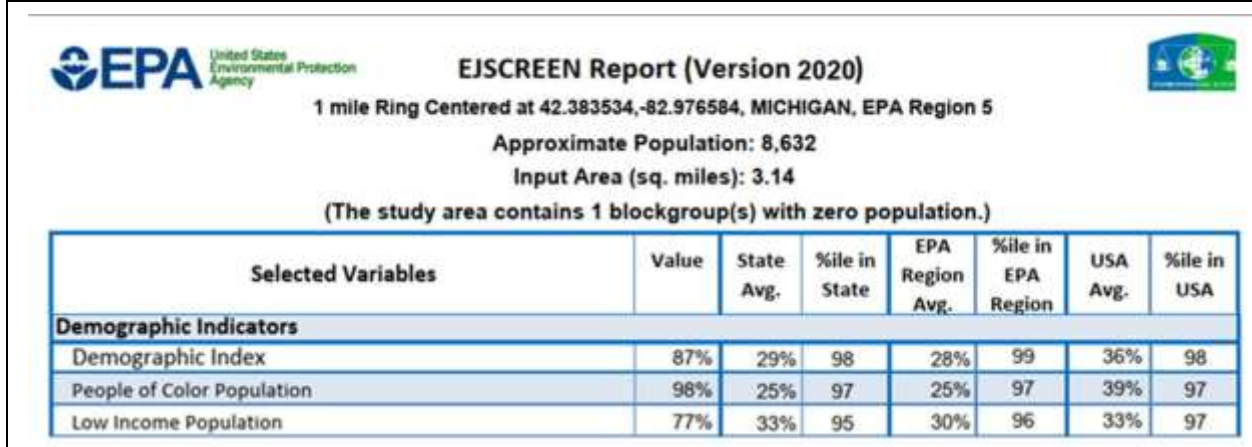
⁴⁰ id.

²¹⁶ University of California Berkeley, Most to Least Segregated Cities in the US, 2019.

<https://belonging.berkeley.edu/most-least-segregated-cities.>; EdBuild, 50 Most Segregating Borders In The Country, <https://edbuild.org/content/fault-lines/data>.

data from the area comprising a one-mile radius of the facilities, the tool found that the level of minority composition of the community is among the top 98% of the state as well as 98% of the entire US. Similarly, the low-income makeup of the community is greater than 95% of the rest of the state and 97% of the country.

Figure 3



D. Environmental Quality of the Surrounding Area

Individuals residing near these facilities are inundated with levels of environmental indicators exceeding the state average in nearly every instance. The area has failed to meet the EPA’s National Ambient Air Quality Standard (NAAQS) for ground-level ozone since 2018.²¹⁷ 12.9% of individuals tested within the surrounding census tracts exhibited elevated blood lead levels compared to 5.9% statewide.²¹⁸

The EJSCREEN report in Figure 4 below, providing data on environmental indicators within a 1-mile radius of the facilities, further confirms the stark contrast between the characteristics of the area compared to the rest of the state. According to the data compiled by the EPA through this tool, all but two environmental indicators are above state average levels. Of particular relevance here are levels of respiratory stressors. Ozone levels are higher than 87% of the state and particulate matter levels more than

89% of the state. Diesel particulate matter levels are over 164% higher than the state average.

Figure 4

²¹⁷ U.S. EPA, Michigan Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants (Last Revised Oct. 31, 2021), https://www3.epa.gov/airquality/greenbook/anayo_mi.html.

²¹⁸ U.S. Census Bureau (2018). American Community Survey 5-year estimates. Retrieved from State of the Detroit Child Profile page for FCA 3, <https://sdc.datadrivendetroit.org/custom-profiles/fca-3/>



1 mile Ring Centered at 42.383534, -82.976584, MICHIGAN, EPA Region 5

Approximate Population: 8,632

Input Area (sq. miles): 3.14

(The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Environmental Indicators							
Particulate Matter (PM 2.5 in $\mu\text{g}/\text{m}^3$)	9.38	8.11	89	8.4	85	8.55	77
Ozone (ppb)	44.9	43.1	87	43.8	61	42.9	70
NATA ¹ Diesel PM ($\mu\text{g}/\text{m}^3$)	0.554	0.338	83	0.446	70-80th	0.478	70-80th
NATA ¹ Cancer Risk (lifetime risk per million)	29	24	86	26	70-80th	32	<50th
NATA ¹ Respiratory Hazard Index	0.34	0.29	76	0.34	50-60th	0.44	<50th
Traffic Proximity and Volume (daily traffic count/distance to road)	1100	650	83	530	89	750	83
Lead Paint Indicator (% Pre-1960 Housing)	0.78	0.38	86	0.38	87	0.28	92
Superfund Proximity (site count/km distance)	0.076	0.15	58	0.13	60	0.13	57
RMP Proximity (facility count/km distance)	1	0.53	83	0.83	73	0.74	77
Hazardous Waste Proximity (facility count/km distance)	2	1.2	80	2.4	63	5	66
Wastewater Discharge Indicator (toxicity-weighted concentration/m distance)	1.2E-05	1.7	45	2.4	36	9.4	45

The EPA tool combines environmental and demographic indicators to generate Environmental Justice Indexes. Based on the elevated environmental and demographic indicators, the EJ indices for the area within a 1-mile radius of the Jefferson North and Mack Avenue Assembly Plants all but one is among the highest 8% in the state of Michigan, reaching as high as the 95th percentile statewide.

Figure 5



1 mile Ring Centered at 42.383534,-82.976584, MICHIGAN, EPA Region 5

Approximate Population: 8,632

Input Area (sq. miles): 3.14

(The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	State Percentile
EJ Indexes	
EJ Index for PM2.5	94
EJ Index for Ozone	93
EJ Index for NATA* Diesel PM	94
EJ Index for NATA* Air Toxics Cancer Risk	94
EJ Index for NATA* Respiratory Hazard Index	94
EJ Index for Traffic Proximity and Volume	94
EJ Index for Lead Paint Indicator	94
EJ Index for Superfund Proximity	92
EJ Index for RMP Proximity	95
EJ Index for Hazardous Waste Proximity	93
EJ Index for Wastewater Discharge Indicator	85

IV. Legal Background

Since its adoption in 1964, the Civil Rights Act has served as the principal federal authority prohibiting state agencies from engaging in discrimination on the basis of race, color, or national origin. The passage of this statute was one of the crowning legislative achievements of the civil rights movement of the 20th century. Soon to follow the Civil Rights Act was the passage of a multitude of federal environmental laws throughout the 1970s and 1980s. Most of these federal environmental laws rely on the framework of cooperative federalism. Pursuant to this framework, federal environmental laws establish the baseline standards, and require states to adopt and implement state laws and regulations in a manner that is sufficient to meet the federal baseline standards. In the context of air quality regulation, the Clean Air Act and its underlying regulations establish the federal standards.

A. Federal Laws Governing Air Pollution Permitting

First passed by the United States Congress in 1970, the Clean Air Act (CAA) is a federal law that serves as the foundation for regulating air pollution throughout the country. Congress, in drafting the CAA, recognized that “the growth in the amount and complexity of air pollution brought

about by...industrial development...has resulted in mounting dangers to public health and welfare.”²¹⁹²²⁰ Under the Clean Air Act, the Environmental Protection Agency (EPA) is required to regulate the emission of pollutants that “endanger public health and welfare.”⁴⁵

A primary means of regulating air pollution sources through the CAA has historically been through state enforcement of emission limits in State Implementation Plans (SIPs). Each SIP is an enforceable collection of environmental regulations approved by the EPA and used by the respective state to administer air pollution control programs fulfilling the requirements of the CAA. Each SIP is required to include a program to provide for the regulation of the modification or construction of any stationary source as necessary to assure that national ambient air quality standards are achieved.²²¹ States are not allowed to have weaker air pollution controls than those outlined in the CAA. States are, however, allowed to have pollution controls stronger than those required by the CAA.

B. State Laws Governing Air Pollution Permitting

In Michigan, the authority to implement the CAA is granted to EGLE’s Air Quality Division (AQD) through Part 55 (Air Pollution Control) of Michigan’s Natural Resources and Environmental Protection Act (NREPA), Public Act 451 of 1994, as amended.²²² The EGLE Part 55 Air Rules, approved by the EPA, regulate air emissions and require permits for major sources of pollutants. Specifically, Rule 201 of the Michigan Air Pollution Control Rules requires a person to obtain an approved Permit to Install for any potential source of air pollution unless the source is exempt from the permitting process.

At its heart, the permit to install program ensures that any new or modified stationary source of air pollution will operate in compliance with air quality laws and regulations,

which exist to protect the public health.²²³ To ensure this goal is met, permit applicants must supply sufficient information to EGLE to allow the Department to make a reasonable judgment that all federal and state air quality laws and regulations will be complied with.²²⁴ A person must obtain a permit to install before installing, constructing, reconstructing, relocating, or modifying

²¹⁹ Clean Air Act (CAA), 42 U.S.C. § 7401(a)(2).

²²⁰ U.S.C. 7401 et seq.

²²¹ 42 USC § 7410(a)(2)(C).

²²² Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451.

²²³ See, Mich. Admin. Code, R 336.1207(1).

²²⁴ Mich. Admin. Code, R 336.1207(2).

any process or process equipment that may emit any air pollutant or contaminant.²²⁵ Permits to install will include conditions meant to ensure compliance with state and federal air quality regulations. Such conditions commonly include emissions limits, monitoring and testing requirements, operational requirements, as well as recording and reporting requirements. These conditions generally apply to specific emissions units or groupings of emissions units that make up the stationary source of air pollution. For larger stationary sources of air pollution, such as the auto assembly plants at issue here, it is common for there to be several permits to install that apply to the operation of the stationary source.

1. EGLE Toxic Air Contaminant Regulations

A key component of EGLE's permit to install program are its toxic air contaminant regulations. If the process or process equipment for which a permit is required will emit a toxic air contaminant, then the permit applicant must comply with both technology-based standards and ambient air quality standards for toxic air contaminants. To satisfy the technology-based standard, the applicant must demonstrate the emissions unit for which it is seeking a permit to install will "not cause or allow the emission of the toxic air contaminant...in excess of the maximum allowable emission rate based on the application of best available control technology for toxics (T-BACT)."²²⁶ To satisfy the ambient air quality standard, the applicant must demonstrate that emissions from the specific emissions unit for which the permit to install is required will not "cause or allow the emission of the toxic air contaminant from the proposed new or modified emission unit or units in excess of the maximum allowable emission rate which results in a predicted maximum ambient impact that is more than the initial threshold screening level or the initial risk screening level, or both."²²⁷ The initial threshold screening level (ITSL) is defined as the "concentration of toxic air contaminant in the

ambient air that is used to evaluate non-carcinogenic health effects from a proposed new or modified process."²²⁸ The initial risk screening level (IRSL) is defined as the "concentration of a possible, probable, or known human carcinogen in ambient air which has been calculated for regulatory purposes...to produce an estimated upperbound lifetime cancer risk of 1 in 1,000,000."²²⁹

²²⁵ Mich. Admin. Code, R 336.1201(1).

²²⁶ Mich. Admin. Code, R 336.1224(1).

²²⁷ Mich. Admin. Code, R. 336.1225(1).

²²⁸ Mich. Admin. Code, R 336.1109(d).

²²⁹ Mich. Admin. Code, R 336.1109(c).

2. Rule 225 - EGLE's Ambient Air Quality Standards for Toxic Air Contaminants

In general, permit applicants demonstrate compliance with the ambient air quality standards for toxic air contaminants by providing an air modeling analysis as a part of its permit to install application. An air modeling analysis consists of the permit applicant estimating its maximum hourly emissions rate and then using a computer program to predict the maximum ambient impact based on that predicted maximum hourly emissions rate and a number of other factors, such as local meteorological data including wind speed and direction. To demonstrate compliance with the toxic air contaminant ambient air quality standards, the permit applicant can provide an air modeling analysis that demonstrates that the maximum ambient impact of each toxic air contaminant to be emitted by the proposed emission unit will be less than the ITSL or IRSL.²³⁰

If a permit applicant is unable to demonstrate that the toxic air contaminant emissions from the emissions unit will cause ambient air impacts below the IRSL, it may demonstrate compliance with the secondary risk screening level (SRSL), which is defined as the “concentration of a possible, probable, or known human carcinogen in ambient air which has been calculated...to produce an estimated upper-bound lifetime cancer risk of 1 in 100,000.⁵⁶ To demonstrate compliance with the SRSL, a permit applicant must provide an air modeling analysis that demonstrates that the maximum ambient impact of each toxic air contaminant emissions from the emissions unit for

which the applicant is seeking a permit and from all other existing emission units at the stationary source will not exceed the secondary risk screening level (SRSL).²³¹

Notably, EGLE's ambient air quality standards for toxic air contaminants leave significant gaps. While Rule 225(1) requires a permit to install applicant to demonstrate that its emissions will not cause ambient impacts above any IRSL or ITSL for any toxic air contaminant, it only requires the permit applicant to analyze the emissions from the emissions unit for which it is seeking the

²³⁰ Mich. Admin. Code, R 336.1227(1)(c).⁵⁶
Mich. Admin. Code, R 336.1119(c).

²³¹ Mich. Admin. Code, R 336.1225(2).⁵⁸
Mich. Admin. Code R, 336.1228(1).

permit. Rule 225(1) does not require any consideration of existing background concentrations of any toxic air contaminant nor does it require the permit applicant to consider toxic air contaminants from other emission units at the stationary source or from other nearby stationary sources. While Rule 225(2) does require the consideration of toxic air contaminant emissions from other emission units at the stationary source, this analysis is only required if a permit applicant is unable to demonstrate compliance under Rule 225(1).

3. Rule 228 - Omnibus Provision for the Protection of Health or the Environment

While Rule 225 leaves gaps, Rule 228 is an omnibus provision that allows EGLE to close those gaps. Rule 228 provides that even in situations where a permit applicant has demonstrated compliance with the technology and ambient air quality standards for toxic air contaminants described above, EGLE may determine that the maximum allowable emission rate allowed pursuant to both standards “does not provide adequate protection of health or the environment.”²⁵⁸ In such a case, EGLE may establish a lower maximum allowable emission rate that takes into account “relevant scientific information, such as exposure from routes other than direct inhalation, synergistic, or additive effects from other toxic air contaminants, and effects on the environment.”²³²

C. Title VI of the Civil Rights Act of 1964

Section 601 of Title VI requires that “[n]o person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity

receiving Federal financial assistance.”²³³ In addition to Section 601, Section 602 directs federal agencies that are empowered to extend financial assistance to issue rules, regulations, or orders of general applicability, “which shall be consistent with achievement of the objectives” of Title VI.²³⁴ In accordance with Section 602, the EPA first promulgated its Title VI regulations in 1973.²³⁵

²³² Id.

²³³ 42 USCS § 2000d

²³⁴ 42 USCS § 2000d-1

²³⁵ 38 FR 17968 (1973), as amended by 49 FR 1656 (1984) (codified at 40 CFR part 7).

1. EPA's Title VI Regulations and Environmental Justice

As a federal agency that is authorized to extend financial assistance, the EPA has promulgated Title VI regulations pursuant to Section 602. These regulations are described in 40 C.F.R. Part 7 ("EPA's Title VI Regulations").²³⁶ EPA's Title VI Regulations apply to all applicants for and recipients of EPA assistance in the operation of programs or activities.²³⁷ As a recipient of EPA financial assistance, EGLE submitted assurance that it would comply with EPA's Title VI Regulations along with its applications for funding.⁶⁵

Pursuant to the EPA's Title VI Regulations, EGLE is obligated to comply with several requirements aimed at eliminating discrimination on the basis of race, color, or national origin. Relevant to this complaint are the following requirements:

- EGLE shall not exclude any person from participation in, deny any person the benefits of, or subject any person to discrimination under any program or activity receiving EPA assistance on the basis of race, color, national origin, or sex.²³⁸
- EGLE shall not use criteria or methods of administering its program or activity that have the effect of subjecting individuals to discrimination because of their race, color, national origin, or sex.²³⁹

Central to the EPA's Title VI implementing regulations is the consequence of agency policies and decisions, not their intent. As such, they include prohibitions against both intentional and unintentional discrimination by EGLE and other EPA funded agencies.²⁴⁰

Unintentional discrimination includes those actions that have a disproportionately adverse effect on individuals of a certain race, color, or national origin. Despite not being formalized in writing, a neutral policy or decision understood as a "standard operating procedure, a failure to act, or a

²³⁶ 40 CFR 7.35.

²³⁷ 40 CFR 7.15.

⁶⁵ 71 FR 14207

²³⁸ 40 CFR 7.30.

²³⁹ 40 CFR 7.35(b).

²⁴⁰ 40 CFR § 7.35, supra note 109.

failure to proactively adopt an important policy can also constitute a violation of Title VI.”²⁴¹

While many environmental laws, regulations, policies, and decisions are neutral on their face, they can still produce unintentional discriminatory effects that violate Title VI. For this reason, EGLE’s “Title VI obligation is layered upon its separate, but related obligations under the Federal or state environmental laws governing its environmental permitting program.”⁷⁰

Therefore, the mere fact that a state agency such as EGLE can demonstrate their actions comply with relevant federal and state environmental laws “does not constitute per se compliance with Title VI.”⁷¹

Similarly, the “question of whether or not individual facility operators are in violation of [environmental laws] is distinct from whether the permitting agencies' decision to grant permits to the operators had a discriminatory impact on the affected communities.”²⁴² The fact that EGLE does not select the site in a license application does not relieve it of the responsibility of ensuring that its actions in issuing licenses for such facilities do not have a discriminatory effect.⁷³ Within the context of Title VI, the issuance of a license by EGLE or any other recipient of EPA funding is the “necessary act that allows the operation of a source that could give rise to adverse disparate effects on individuals.”⁷⁴ To operate, the owners of a facility must both “comply with local

zoning requirements” and “obtain the appropriate environmental permit.”²⁴³ An EPA funding recipient’s operation of a licensing program is independent of local government zoning activities.

2. Disparate Impact Standard

For complaints pursuing an administrative investigation based on the discriminatory effects standard in EPA's Title VI Regulations the agency must determine whether a facially neutral policy or practice resulted in an “unjustified adverse disparate impact.”²⁴⁴ A four-step analysis is

²⁴¹ See, e.g., *Maricopa Cty.*, 915 F. Supp. 2d at 1079 (disparate impact violation based on national origin properly alleged where recipient “failed to develop and implement policies and practices to ensure [limited English proficient] Latino inmates have equal access to jail services” and discriminatory conduct of detention officers was facilitated by “ broad, unfettered discretion and lack of training and oversight” resulting in denial of access to important services). ⁷⁰ F.R. 65, No. 124. 39691. (2000) ⁷¹ Id. at 39690.

²⁴² *Californians v. United States EPA*, 2018 U.S. Dist. LEXIS 56105, *35

⁷³ F.R. 65, No. 124. 39691. (2000) ⁷⁴ Id.

²⁴³ Id.

²⁴⁴ Environmental Protection Agency, Draft Title VI Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs, 65 Fed. Reg. 39,650 (June 27, 2000) Appendix 7.

used to determine whether a state agency's decision had a discriminatory effect:²⁴⁵

- 1) Identify the specific policy at issue²⁴⁶
- 2) Establish adversity/ harm²⁴⁷
- 3) Establish disparity²⁴⁸
- 4) Establish causation.⁸¹

Where the evidence sufficiently meets the standards of the four-part test, the complainants have sufficiently established a "prima facie case:" a finding must be in their favor, provided their evidence is not sufficiently rebutted by the other party. Once a prima facie case is established, the burden shifts to the agency, which must then

produce a "substantial legitimate justification" for the challenged policy or practice.⁸² Not every reason is legally sufficient to rebut a prima facie case.⁸³ The explanation of its reason must be clear and reasonably specific.²⁴⁹ To be a "substantial legitimate justification," it must also be demonstrably related to a significant, legitimate goal.²⁵⁰ The agency's interest in policy implementation must then be weighed against the substantial public interest in preventing

²⁴⁵ Elements of a Title VI disparate impact claim are like the analysis of cases decided under Title VII. *N.Y. Urban League, Inc. v. New York*, 71 F.3d 1031, 1036 (2d Cir. 1995) (Codified in Title VII at 42 U.S.C. § 2000e–2(k).)

²⁴⁶ *Texas Dep't of Hour. & Cmty. Affairs v. Inclusive Communities*, 135 S. Ct. 2507, 2523 (2015). "a disparate impact claim that relies on a statistical disparity must fail if the plaintiff cannot point to a defendant's policy or policies causing that disparity."

²⁴⁷ E.g., *S. Camden Citizens in Action v. N.J. Dep't of Envtl. Prot.*, 145 F. Supp. 2d 446, 487, opinion modified and supplemented, 145 F. Supp. 2d 505 (D.N.J.) (discussing the methods used to "evaluate the 'adversity' of the impact" and considering whether the impacts at issue were "sufficiently adverse" to establish a prima facie case), rev'd on other grounds, 274 F.3d 771 (3d Cir. 2001).

²⁴⁸ *Tsombanidis v. W. Haven Fire Dep't*, 352 F.3d 565, 576–77 (2d Cir. 2003).

⁸¹ *Flores v. Arizona*, 48 F.Supp. 2d 937, 952 (D. Ariz. 1999)

²⁴⁹ See *Texas Dep't of Cnty, Affairs v. Burdine*, 450 U.S. 248, 254-55, 258 (1981).

²⁵⁰ *Georgia State Conf. v. Georgia*, 775 F.2d 1403, 1417 (11th Cir. 1985). ("Substantial legitimate justification" in a disparate impact case, is similar to the Title VII employment concept of "business necessity," which in that context requires a showing that the policy or practice in question is demonstrably related to a significant, legitimate employment goal.)

discrimination.²⁵¹

A finding of a “substantial legitimate justification” for its policy is not in itself exculpatory. Instead, the agency must then determine if there are “less discriminatory alternatives.”²⁵² Where the evidence shows that “less discriminatory alternatives” exist, the policy must be found to violate Title VI, even where the agency demonstrates a “substantial legitimate justification” for its discriminatory actions.²⁵³

“It is possible to have a violation of Title VI or EPA's Title VI regulations based solely on discrimination in the procedural aspects of the permitting process (e.g., public hearings, translations of documents) without a finding of discrimination in the substantive outcome of that process (e.g., discriminatory human health or environmental effects). Likewise, it is possible to have a violation due to discriminatory

⁸² N.Y. Urban League, 71 F.3d at 1036, *Powell v. Ridge*, 189 F.3d 387, 394 (3d Cir. 1999) (citing *Georgia State Conf.*, 775 F.2d at 1417)

⁸³ *NAACP v. Med. Ctr., Inc.*, 657 F.2d 1322, 1350 (3d Cir. 1981) (en banc) (“The content of the rebuttal or justification evidence cannot be determined in the abstract. It must be related to the precise impacts suggested by the plaintiffs’ evidence.”)

human health or environmental effects without the presence of discrimination in the public participation process.”²⁵⁴

The EPA has noted that Title VI concerns are often raised by communities that “believe they are suffering from adverse effects caused by multiple sources.”²⁵⁵ For such communities, filing a Title VI complaint about a license issued to a specific facility “is a way to focus attention on the

²⁵¹ *Gashi v. Grubb & Ellis Property Management Servs.*, 801 F. Supp. 2d 12, 16 (D. Conn. 2011)(citing *Huntington Branch, NAACP v. Town of Huntington*, 844 F.2d 929, 937 (2d Cir. 1988), *aff’d*, 488 U.S. 15 (1988) (“After the defendant presents a legitimate justification, the court must weigh the defendant’s justification against the degree of adverse effect shown by the plaintiff.”)

²⁵² *Elston v. Talladega Cty. Bd. of Educ.*, 997 F.2d 1394, 1407-1413; *Georgia State Conf.*, 775 F.2d at 1417.

²⁵³ See, e.g., *Coalition of Concerned Citizens Against I-670 v. Damian*, 608 F. Supp. 110, 127 (S.D. Ohio 1984). (conducting a thorough review of alternative sites for highway or other methods, such as light rail or public transportation)

²⁵⁴ Environmental Protection Agency, *Draft Title VI Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs*, 65 Fed. Reg. 39,650 (June 27, 2000)

²⁵⁵ *Id.*

cumulative impacts.”²⁵⁶ As such, a Title VI analysis should include an analysis of cumulative impact, which is an assessment of the total exposure to multiple environmental stressors, including exposures originating from numerous sources.⁹²

A finding of a violation of Title VI and EPA’s implementing regulations must be supported only by the lowest legal standard of proof, a mere preponderance of the evidence.²⁵⁷ If the facts alleged are found to be more than 50% likely to be true, even by the slightest infinitesimal amount, a finding of discrimination must be made.

V. Complaint

EGLE’s decision to issue numerous permits requested for the Stellantis Complex in a short period, which allowed for a significant enlargement of air emissions in a low-income community where nearly all residents within 1 mile are people of color already inundated by other industrial sources, amounts to discrimination on the basis of race, color, and national origin in violation of 40 C.F.R. § 7.30 and 40 C.F.R. § 7.35(b).

EGLE’s failure to adopt a policy requiring cumulative impact analyses during the permitting process for industrial facilities continues to compound the disproportionate burden of air pollution borne by Michigan’s low-income communities of color, amounting to a policy that is discriminatory on the basis of race, color, and national origin in violation of 40 C.F.R. § 7.30 and 40 C.F.R. § 7.35(b).

A. EGLE’s decision to approve permits regarding FCA facilities, which increased air emissions in an already disparately impacted community of color, violates 40 C.F.R. Part 7.

In the United States, environmental laws are highly technocratic, prescribing specific limits for individual pollutants at discrete facilities. They are the bounds of a scheme that grants the right of facilities to pollute. By so intensely focusing on the technical, their construction is ostensibly race-neutral on their face.

As such, nothing in the Clean Air Act or Part 55 of Michigan’s Natural Resources and

²⁵⁶ Id.

⁹² Id.

²⁵⁷ In Re Genesee Power Station. Complaint No. 01R-94-R5. Environmental Protection Agency (2017). <https://www.documentcloud.org/documents/3410925-FINAL-Letter-to-Genesee-Case-ComplainantFather.html>.

Environmental Protection Act requires EGLE to consider cumulative effects of multiple sources located in a concentrated area. Nor does either statute require EGLE to consider whether its decision to issue a license to emitting facilities like those at issue here will have a disproportionate impact on persons of a particular race, color, or national origin.

Yet, it is precisely because of facially race-neutral laws and the actions that are justified by them that Title VI of the Civil Rights Act focuses not merely on the intent of an action but also on its effect. As noted by the EPA, compliance with environmental laws does not constitute per se compliance with Title VI. In short, the same action can be both in compliance with state and federal environmental laws and be deemed a violation of a community's civil rights.

The intent behind EGLE's decisions permitting Stellantis to further inundate a community so vulnerable to the effects of increased levels of pollution may not have been to discriminate. Sadly, the effects of their decisions have been to cause considerable and discriminatory harm. Additionally, the community is uniquely impacted by numerous adverse impacts associated with the operation of these massive emitting facilities.

The operation of the Stellantis Complex quite literally in the backyard of a dense urban neighborhood creates numerous adverse environmental impacts that have already begun to cause severe consequences for the health and wellbeing of nearby families. The experiences of the following individuals only begin to illustrate the real, substantial, and adverse impacts EGLE's decisions have imposed on the community as a whole.

Victoria Thomas⁹⁴

"I don't want to die for Jeep."

A retired locker room attendant for Detroit Public Schools, Victoria Thomas lights up when she talks about kids. It makes sense. After decades of working at Southeastern High School, she has spent much of her time in retirement as a respite foster care parent. Taking in at least eight children at various points over the course of the last four years, she has dreams of adopting a girl one day. Despite moving to Beniteau Street in 1983, when she thinks of that future, she does not envision it taking place there.

The degradation of air quality in the area has placed a glaring burden on Ms. Thomas' life. Reliant on a single window air conditioning unit to cool her home, she used to keep windows open on very hot days. However, she had begun to notice levels of dust accumulating inside her home like she had never experienced before. Her furniture would become covered in an orange powdery substance.

Her sister, aunt, and mother all resided on Beniteau alongside her. In 2014, when attempting to care for their elderly mother, Ms. Thomas' sister began to suffer from sarcoidosis. The rare inflammatory disease caused the growth of nodules in her lungs as well as on her skin. While suffering from a debilitating persistent cough, shortness of breath, and tender skin lesions, she learned that air pollutants had been tied to onset of the disease.⁹⁵ Ms. Thomas began to suspect the emissions from the Stellantis Complex as a contributor to her sister's suffering. Despite benefiting from her sister's assistance in caring with their mother, Ms. Thomas encouraged her to leave the area while she remained, caring for her mother until her passing in 2017.

Later, it was her aunt that became haunted by what began as a mild cough but developed to one persistent and painful. Earlier this year, she had enough. Ms. Thomas

⁹⁴ Based on Interview of Victoria Thomas by Andrew Bashi, October 18, 2021 (transcript available upon request).

⁹⁵ Cheryl Pirozzi, Short-Term Particulate Air Pollution Exposure is Associated with Increased Severity of Respiratory and Quality of Life Symptoms in Patients with Fibrotic Sarcoidosis, *International Journal of Environmental Research and Public Health* vol. 15 (2018); Philipp Rustler, Acute Sarcoidosis Clusters in Cold Season and Is Associated with Ambient Air Pollution: A Retrospective Clinical–Meteorological Study, *Annals of the American Thoracic Society*, 18 (2021); GP Kucera, Occupational risk factors for sarcoidosis in African-American siblings, *Chest* 123 (2003); DJ Prezant, The incidence, prevalence, and severity of sarcoidosis in New York City firefighters. *Chest* 116 (1999).

drove her aunt to stay with their family in Georgia where her symptoms rapidly dissipated and she has now permanently relocated.

Ms. Thomas has gone to extraordinary lengths to fend off outdoor air pollutants. She visited a local fabric retailer to purchase 8 to 9 yards of clear plastic film. She has used it to permanently seal every window in her home, but for the one playing host to her air conditioner. Her furniture is covered with plastic sheets to preserve it from unwanted intrusions of dust. An air purification unit sits prominently in her living room.

Still, Ms. Thomas has experienced year-round symptoms of poor air quality of her own. Early in the morning, she often wakes to a mild to strong burning sensation in the back of her throat. She has developed a chronic persistent cough, first dry, now accompanied by congestion and increased levels of mucus in her throat.

She has also developed chronic watery eyes that persist year-round, a symptom increasingly documented in patients with frequent interactions with elevated levels of air pollutants.²⁵⁸ Under

²⁵⁸ PD Gupta, Minor to Chronic Eye Disorders Due to Environmental Pollution: A Review. *J Ocul Infect Inflamm*

recommendation from her ophthalmologist, she attempts to soothe her discomfort with eye drops and application of a warm compress, however the problem has not relented.

Neither the houses that used to stand behind Ms. Thomas' home nor the earthen berm sound barrier that was erected to replace them are there any longer. The properties, along with the strip of St. Jean Street on which they were located, was handed to Stellantis by the City of Detroit as part of a massive land transfer. Today, those plots are 360,000 square feet of parking and St. Jean is a thoroughfare for Stellantis employees and truck drivers. While a concrete wall makes up most of what she sees of the plant from her backdoor, noise readily makes its way through.

Truck drivers, impatiently waiting to enter the grounds from the light on Mack Avenue, routinely use their air horns to move traffic along. The sound of large diesel engines, trains, and employee vehicles are constant, accompanied by the occasional low flying helicopter dropping off materials during construction or the sirens of fire trucks

2: 108 (2018).; C.J. Chang, Impact on Eye Health Regarding Gaseous and Particulate Pollutants. *Aerosol Air Qual. Res.* 20 (2020).; Tristan Bourcier, Effects of air pollution and climatic conditions on the frequency of ophthalmological emergency examinations, *British J. Ophthalmology* 87 (2003)

arriving on the scene. Every few days Ms. Thomas hears an unexplained high-pitched sound emanating from the facility, lasting for roughly 5 minutes each time.

Perhaps even more disturbing are the sounds of employees. The freshly paved parking lot now located behind her home transforms into a host for loud Thursday night parties. From her bedroom, Ms. Thomas can both see and hear the raucous drinking and smoking taking place on Stellantis grounds, and the occasional employee traversing the alleyway to urinate in her backyard. She has been disturbed by the sounds of arguing and fighting taking place behind those concrete walls. She has witnessed loud explosion-like sounds that shook her entire home. Bricks have shifted, exerting so much pressure on the structure that some windows will no longer open. She no longer utilizes her wall-mounted kitchen cabinetry, a sensible decision after vibrations separated them two inches from the wall.

The noises have taken a toll on Ms. Thomas. They make it difficult for her to fall asleep. She is prematurely awoken nearly every night. Startled, she often has difficulty falling back asleep. The bright white lamps used to illuminate the parking lot shine directly into her bedroom. It felt like daytime no matter the hour of night until she installed tinted film to block some of it out. She now experiences chronic fatigue, attributed to the near nightly disruptions of her sleep and frequently wakes with headaches. The weekends, quieter than weekdays on average, are often her only chance to sleep restfully through the night.

Robert Shobe²⁵⁹

“When my eyes start to burn, I start to become more afraid of all the things I can’t smell than those that I can.”

The smell of fumes reminiscent of paint would make any reasonable person concerned. For Robert Shobe, a longtime resident of Beniteau Street, exposure to potentially hazardous pollutants make him more than concerned. He is genuinely afraid.

As a cancer patient, Mr. Shobe’s health status makes him particularly vulnerable to the adverse impacts of environmental contaminants. Battling lymphoma, he is well aware

²⁵⁹ Based on Interview of Robert Shobe by Allyson Putt, October 15, 2021 (transcript available upon

of research suggesting a causal link between exposure to air pollutants and his disease.²⁶⁰

At the same time, he has been diagnosed with chronic obstructive pulmonary disease (COPD), which can make breathing difficult for him.

Over the last year, Mr. Shobe has noticed a marked increase in both air quality concerns and his own symptoms. He notices the smell of paint, like it was freshly sprayed from an aerosol can, about 75% of the time from his home on Beniteau directly abutting the FCA complex. It is often particularly strong early in the morning. Breathing in now causes him to cough and develop increased tightness in his chest. He gets frequent headaches and his eyes often begin to burn, even on the off chance that the smell of paint in the air is not as noticeable. He is more easily fatigued and has developed frequent bouts of nausea. His symptoms often clear up within an hour of leaving the neighborhood, but nearly always within three or four hours.

With his health conditions, Ms. Shobe is keenly aware of the importance of exercise, but the presence of the facility has made it harder to do. Where he used to exercise in his own community, playing basketball with friends in the neighborhood, he is now too weary to breathe in the air.

His neighbor, Binh Phung, has noticed a difference. “He used to be very active, mowing his lawn and doing a lot of other activities. But now I mostly see him staying indoors and his health is deteriorating.”²⁶¹ Mr. Phung, who owns the home next door, was forced to relocate, moving in with relatives along with his wife and three children. He moved his family out of the neighborhood when he noticed a huge increase in dust and noise pollution emanating from the Stellantis Complex. He hopes to move back, but for now, the risks are too high.

While Mr. Phung has moved his family in with relatives for the time being, Mr. Shobe has had to avoid having family or friends over because of the disruption caused by the Stellantis Complex. He has concerns that his family will too be disparately impacted by

²⁶⁰ See: Rana Iemaan, Benzene exposure and non-Hodgkin lymphoma: a systematic review and meta-analysis of human studies, *The Lancet Planetary Health*, 2021; Rebeca Ramis, Study of non-Hodgkin's lymphoma mortality associated with industrial pollution in Spain, using Poisson models. *BMC Public Health* 9 (2009).

²⁶¹ Based on Interview of Binh Phung by Allyson Putt, October 29, 2021 (transcript available upon

the effects of decreased air quality. One of his sons is immunosuppressed after receiving a kidney transplant. The other is an asthmatic. His grandbabies have not visited since work on the Stellantis Complex began. While he now stays inside his home as much as possible, his family members are too weary to visit, with their own concerns for their health.

Then there are the noises. He hears the sound of diesel engines roaring in the background at all hours, day and night. Sleeping in the front of his house has allowed him to notice less noise than some of his neighbors. Still, he knows exactly when there has been a shift change by the sound of employee vehicles speeding through the parking lot and down his street. Loud bangs and vibrations sometimes shake his house, causing nails to pop out of their place and his back porch to begin to collapse.

Tanisha Burton²⁶²

“The migraine headaches, and the burning in the eyes, and tightness in my chest... I just know when I'm out too long, I get that way, but I can't say today is going to be worse than tomorrow. I know yesterday it was just too much. I was crying.”

Like most grandparents, the highlight of Ms. Burton's life is spending time with her grandchildren. She has lived in her home on Beniteau Street for three years and her work hours are long. The little time she is home is generally spent attempting to rest for the next day of work or entertaining her grandchildren when they stay with her every other weekend. Lately, however, she has been spending those special weekends elsewhere. Her own increasing health symptoms make her concerned for their health too. Now she spends the weekend with them at a hotel.

Epileptic as a child, she has been suffering from constant migraines, a resurgence that has coincided with the increasing odors of paint and fumes inundating her neighborhood from the Stellantis Complex. After almost two years without needing to refill her prescription medication, meant to control both seizures and migraine headaches, her doctor wrote her a new prescription just weeks ago. “I feel like the smell is making me have really bad headaches, and I have to take medicine constantly now.”

²⁶² Based on Interview of Tanisha Burton by Allyson Putt, October 19, 2021 (transcript available upon

Like many of her neighbors, she has also been experiencing respiratory and ophthalmic symptoms multiple times a week. She has been feeling increased tightness in her chest alongside shortness of breath. If she's outside for too long, her eyes begin to burn.

The symptoms clear up when she is not around her neighborhood. That is why she tries to spend as much time away from home as possible. Her porch no longer gets much use and she no longer invites people to her home. As for her grandkids, like any others, "they want to run and play." Her home is down the street from a park and big fields, perfect for kids to play in. Letting them do so in her neighborhood, exposing their young lungs to the chemicals behind the odors she routinely smells emanating from the Stellantis Complex, is a risk she no longer takes.

When her community was planning their annual fall Harvest Festival, they had hoped to do it outdoors in an open field in the neighborhood. Concerns about air quality forced them in another direction. "We can't have things on our block without somebody getting sick."

All she can hear from her bedroom are the siren-like sounds, car alarms, and other noises emanating from the complex. Startlingly awoken and adrenaline pumping, she has difficulty falling back asleep. The vibrations generated by activities on the Stellantis property have caused shifts in her home's foundation. On a limited income, home repair costs have only increased since EGLE granted permits allowing for the expansion of the Stellantis Complex.

Akishia Hunter²⁶³

"We're not getting paid. We don't work there. But it's like we're being forced to live inside the factory."

Born and raised on Beniteau Street, Ms. Hunter has owned her current home for around 5 years. That's not to say she has been able to live in it the entire time. "Since July we've been staying in hotels." A series of environmental health concerns have left her and her family displaced.

²⁶³ Based on Interview of Akishia Hunter by Allyson Putt, October 21, 2021 (transcript available upon

Her son has severe asthma, regularly relying on an inhaler and nebulizer to reduce symptoms. The smell of paint and gaseous fumes is present all day. Her and her neighbors continue to call their natural gas utility, fearing that a line may be leaking.

They're response? The smells are not from a leak, but from the Stellantis Complex. "Everything that goes on over there, we smell it." When an employee from the gas company spotted suspected asbestos in her basement, she felt it was time to go. The compounding risks posed by living in a home inundated by industrial emissions and a newfound presence of asbestos finally tipped her over the edge.

At 16, it is easy to imagine her daughter wanting to take advantage of the family's above ground pool on a hot summer day. She had symptoms of mild eczema before, the dryness remedied by cream. Since building increased at the Stellantis Complex her symptoms have reached new levels. Exposure to the air in their backyard causes her skin to itch and break out. Her eyes become irritated; itchy, red, and watering. For the last year she hasn't wanted to join the family outside or to enjoy the pool, knowing that doing so would result in an increase in her symptoms.

Ms. Hunter is eager to speak about the concerns she has for her children, but she too has experienced her own health effects since activity increased at the Stellantis Complex. Similar to Ms. Thomas and Mr. Shobe, Ms. Hunter experiences the worst of these effects in the morning, including headaches and eye irritation.

The effects of constant noise emanating from the Stellantis grounds are similar too. "You barely sleep." A berm that used earth to absorb noise on St. Jean behind her home is gone. Now, "the noise is constantly ongoing." At all times of the night employees fresh off their shifts speed through what is now a parking lot behind her home, often then roaring down Beniteau, ignoring the proximity of their actions to residents trying to sleep. When she is able to fall asleep, she is often startlingly awoken by a "boom." "There's really no resting."

Despite owning her own home and caring for her children on an income of a little over \$30,000 a year, this Black mother has deemed it necessary to expend her limited resources on hotel rooms.

1. Health Impacts

Residents of the communities surrounding the FCA Detroit Assembly Complex have begun experiencing increased levels of respiratory distress and other air quality related ailments since construction and operation activities increased at the Facilities, often compounding existing health challenges. As described through the profiles of the four individual Complainants,

residents have developed symptoms that include persistent coughs, increased mucus production, tightening of the chest, and difficulty breathing. Each has described respiratory symptoms subsiding shortly after leaving the vicinity of the Facilities; i.e., their own homes. In at least one case, that of Ms. Thomas' sister, a resident developed sarcoidosis lesions in her lungs.

Numerous non-respiratory conditions attributable to the Facilities have also been experienced by Complainants and other residents of the area. Complainants specifically identified experiencing routine and intense headaches or migraines, particularly in the morning. Family members have suffered from skin conditions causing breakouts and intense bouts of itchiness.

According to the CDC, 11.2% of adults in Michigan currently have asthma. At over 4% reported greater prevalence than the nation as a whole, the state ranks the 8th highest in the country in this regard. Prevalence of current asthma among adults 18 and older in Wayne County Michigan, where these facilities reside, ranks in the top 2 percent of counties across the United States.

Neither Michigan's nor Wayne County's asthmatic burden, however, are borne equally by communities within their borders. Census tracts surrounding these Stellantis facilities exhibit levels of asthma prevalence among adults 130% to 176% compared to rates of the state as a whole.²⁶⁴ In fact, the tract bordering the FCA facilities immediately to the northeast ranks number 1 of 2772 census tracts in the state for prevalence of asthma among adults with another tract immediately to the east of the facilities ranking 5th.²⁶⁵

Table 3 - Asthma Prevalence Among Adults by Census Tract
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²⁶⁴ CDC, Asthma Prevalence Among Adults, <https://ephracking.cdc.gov/DataExplorer/?c=3&i=54&m=-1>.

²⁶⁵ Id.

County (Census Tract) ▾	Percent	95% Confide... ↓
Wayne County, MI - 26163512200	19.7%	(18.2% - 21.3%)
Wayne County, MI - 26163512900	18.2%	(16.9% - 19.5%)
Wayne County, MI - 26163512300	16.9%	(16.2% - 17.7%)
Wayne County, MI - 26163514300	16.6%	(15.4% - 18%)
Wayne County, MI - 26163512600	16.2%	(15.2% - 17.3%)
Wayne County, MI - 26163512100	16.1%	(15.2% - 17.2%)
Wayne County, MI - 26163513900	16.3%	(15% - 17.7%)
Wayne County, MI - 26163513600	15.9%	(14.7% - 17.2%)
Wayne County, MI - 26163513700	14.6%	(14% - 15.7%)

EGLE knew of existing health burdens but did not incorporate their existence into the decision-making process leading to further increases in disparate adverse impacts on this Black community. Public commenters ensured EGLE was well aware of the existing asthmatic burden on the community. At least one commenter, citing “high asthma rates and other health-related issues in the area,” requested a health impact assessment be performed prior to issuance of these permits.²⁶⁶ Health impact assessments incorporate “an array of data sources and analytic methods and considered input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and whether the health effects are distributed evenly within the population.”²⁶⁷

EGLE, in its response, “agree[d] that there is a relatively high rate of asthma in Detroit” and that “[t]he 48214 zip code is one of several zip codes that have the highest asthma hospitalization rates for both adults and children in the city of Detroit.” After plainly acknowledging its awareness of the disparate health burden already existent in the

²⁶⁶ EGLE Air Quality Division, Response to Comments Document - Permit Nos. 13-19 & 14-19, at 9 (April 2019), https://www.deq.state.mi.us/aps/downloads/permits/PubNotice/14-19/13-19_14-19RTC.pdf

²⁶⁷ Id. (emphasis added)

community, the agency went on to state that it “does not perform health impact assessments.” Instead, it utilizes human health risk assessments, “quantitative, analytic processes” that “are not comprehensive and tend to focus on biophysical risks from exposure to hazardous substances.”²⁶⁸

To make matters worse, while EGLE regulations required Stellantis to offset its increase in volatile organic compound emissions from its Mack Avenue Assembly Plant, it authorized offsets that will have a disproportionate impact on people of color. Specifically, to offset the increase in volatile organic compound emissions at the Mack Avenue Assembly Plant, EGLE authorized the use of a decrease in emissions at an auto assembly plant in Warren that is located in a community that has significantly less people of color in the immediate vicinity.¹⁰⁷

In other words, the disparate health impacts that would occur by increasing emissions among a Black community with uniquely high levels of respiratory disease while decreasing emissions in a community with less people of color was not taken into account when granting the permits. An agency simply “checking a box” by printing an EJSCREEN report is not enough to satisfy the requirements of Title VI in a community such as this one. This is particularly true in Michigan, where EGLE has, for decades, refused to utilize the limited data they do access to impact the outcome of permitting decisions.

The communities surrounding the Stellantis facilities are disproportionately composed of people of color with pre-existing respiratory diseases when compared to state and national averages. As such, the adverse effects, rooted in EGLE’s granting of these permits, continues to impose disproportionate negative impacts on people of color in violation of 40 C.F.R. Part 7.

2. Odors

The expansion of Stellantis’ operations has caused significant increases in odor issues for nearby residents. Residents in the nearby area, including all four individual complainants, have experienced paint and gas like odors emanating from the Stellantis

facilities. Residents have increasingly experienced non-respiratory symptoms that often

²⁶⁸ CDC, Different Types of Health Assessments, https://www.cdc.gov/healthyplaces/types_health_assessments.htm ¹⁰⁷ Supra, note 27.

correspond to the presence of these noxious odors. These non-respiratory symptoms often accompanying the odors include burning sensations in their eyes and nausea. Numerous residents, including the Complainants, no longer feel comfortable using the outdoor spaces of their own homes or the community’s public spaces due to the odors emanating from the Facilities.

The odors described by residents are violations of Mich. Admin. Code, R. 336.1901, prohibiting any person from causing or permitting the emission of an air contaminant in amounts that cause, either alone or in reaction with other air contaminants, injurious effects to human health or safety, or unreasonable interference with the comfortable enjoyment of life and property. EGLE has thus far confirmed these nuisance odors on four separate occasions, issuing the following odor related violations resulting from operations at the Facilities.

Table 4 - Odor Violation Notices Issued to Detroit Assembly Complex in 2021		
Date Violation Issued	Date(s) Violation Confirmed	Comments
September 20, 2021 ²⁶⁹	August 27, 2021 August 31, 2021 September 3, 2021	“Moderate to strong paint/solvent odors observed emitting from the facility and impacting nearby neighborhoods.”
November 3, 2021 ²⁷⁰	October 28, 2021	“Persistent and objectionable paint/solvent odors of moderate to strong intensity observed emitting from the facility and impacting nearby neighborhoods.”

²⁶⁹ EGLE, FCA Violation Notice September 20, 2021, https://www.deq.state.mi.us/aps/downloads/SRN/N2155/N2155_VN_20210920.pdf.

²⁷⁰ EGLE, FCA Violation Notice November 3, 2021, https://www.deq.state.mi.us/aps/downloads/SRN/N2155/N2155_VN_20211103.pdf.

According to EGLE records, neither Stellantis' Warren Truck Assembly Plant nor its Sterling Heights Assembly Plant have received any odor violations. Both of these assembly plants are located in communities that have fewer people of color.

The communities surrounding the FCA facilities are disproportionately composed of people of color when compared to the state and national averages. As such, this adverse effect is having a disproportionately negative impact on people of color in violation of 40 C.F.R. Part 7.

3. Noise

Residents of Beniteau Street know one thing for certain. The sounds of FCA will never let them rest. 24 hours a day. 7 days a week. Complainants and other residents have described hearing house shaking “booms,” sirens, fighting employees, helicopters, diesel trucks, speeding vehicles, parking lot parties, and air horns among numerous other disturbances. They describe being startled in their sleep, in many cases almost nightly, only to struggle to fall back asleep after awakening with a surge of adrenaline. Accompanying these disturbances has been a surge in residents experiencing near daily fatigue.

Sleep disturbances have been “comprehensively and independently associated with poor health-related quality of life in middle-aged and older adults.”²⁷¹ They are associated with, but not limited to, the following:

- declines in health functioning²⁷²
- decreased sensitivity to insulin, a precursor to diabetes²⁷³
- primary headache disorders²⁷⁴
- increases in all-cause mortality in older adults,²⁷⁵

²⁷¹ Miryoung Lee, Sleep disturbance in relation to health-related quality of life in adults: The Fels longitudinal study, *J Nutr Health Aging* 13 (2009)

²⁷² Anne B Newman, Sleep disturbance, psychosocial correlates, and cardiovascular disease in 5201 older adults: the Cardiovascular Health Study. *Journal of the American Geriatrics Society* 45.1 (1997)

²⁷³ Derk-Jan Dijk, Regulation and functional correlates of slow wave sleep. *Journal of Clinical Sleep Medicine* vol. 5, 2 Suppl (2009)

²⁷⁴ Siv Steinsmo Ødegård, Associations between sleep disturbance and primary headaches: the third NordTrøndelag Health Study. *J Headache Pain* 11, 197–206 (2010).

²⁷⁵ Charles Pollak, Sleep problems in the community elderly as predictors of death and nursing home placement. *Journal of Community Health* 15.2 (1990).

- increased hazards for coronary heart disease mortality and morbidity, ¹¹⁵
- increased relative risk for suicidal ideation, suicide attempt, and suicide¹¹⁶
- newly developed poor mental health status, ²⁷⁶
- future depression in elderly people²⁷⁷

The construction of a concrete wall between the backyards of residents of Beniteau and the FCA complex has failed to achieve any meaningful outcome for the community. Instead, the wall is eerily reminiscent of Detroit’s famed Birwood Wall. Constructed in 1941, the wall served to physically segregate a newly constructed white neighborhood from a predominantly Black one.²⁷⁸²⁷⁹²⁸⁰ It still stands today.



¹¹⁵ Tarani Chandola, The Effect of Short Sleep Duration on Coronary Heart Disease Risk is Greatest Among Those with Sleep Disturbance: A Prospective Study from the Whitehall II Cohort, *Sleep*, Volume 33, Issue 6 (2010). ¹¹⁶

²⁷⁶ Yoshitaka Kaneita, Associations between sleep disturbance and mental health status: A longitudinal study of Japanese junior high school students, *Sleep Medicine*, Volume 10, Issue 7, 2009,

²⁷⁷ Gill Livingston, Does sleep disturbance predict depression in elderly people? A study in inner London, *British Journal of General Practice* 43 (1993)

²⁷⁸ See Gerald C. Van Dusen, *Detroit’s Birwood Wall: Hatred and Healing in the West Eight Mile Community* (2019)

²⁷⁹ 3BLMedia, The City of Detroit and FCA Seek Artists to Paint One of the Largest Municipal Art Installations in Detroit’s History, February 10, 2020, <https://www.3blmedia.com/news/city-detroit-and-fca-seek-artists-paint-one-largest-municipal-art-installations-detroits> (screenshot).

²⁸⁰ Eric D. Lawrence, Detroit’s hulking sound barrier prompts Berlin Wall comparisons, *Detroit Free Press*, Mar. 6, 2020, <https://www.freep.com/in-depth/money/cars/chrysler/2020/03/06/detroit-fiat-chrysler-wallsound-barrier/4821119002/>.

Wilfred Pigeon, Meta-analysis of sleep disturbance and suicidal thoughts and behaviors. *J Clin Psychiatry* 73 (2012).

As the experiences of the Complainants reflect, the wall has not sufficiently reduced their exposure to noises, air pollutants, or odors. Neither do FCA's attempts to paint over it.²⁸¹ As one Beniteau resident was recently quoted as saying, "It does nothing to fix the deeper issues in this community. It's like a bandaid over a bullet wound."²⁸²

The communities surrounding the FCA facilities are disproportionately composed of people of color when compared to state and national averages. As such, the adverse effects, rooted in EGLE's granting of these permits, continues to impose disproportionate negative impacts on people of color in violation of 40 C.F.R. Part 7.

4. Community Degradation and Displacement

"It was a place where you would really want to raise your kids and have your kids because everybody knew each other. It was a family, it was nice. Sit on the porch, eat your little watermelon or your fruit, the kids playing jump rope or riding their bikes. They can't do that anymore. These kids are never going to experience that. My grandchildren and their children won't get the chance to experience that because of the noise, the traffic, the pollution. It's just so many different things, hazardous things. That's not really a place to raise a family anymore.

²⁸¹ Aaron Mondry, Detroit mural project outside FCA plant sparks concerns about 'artwashing'. *Curbed*, Mar 5, 2020, <https://detroit.curbed.com/2020/3/5/21166290/detroit-fca-mural-project-community-benefitsartwashing>.

²⁸² *Id.*

They took all of that from us. And without even asking us. They just took.” - Akishia Hunter²⁸³

A shocking number of residents have been displaced from their homes due to the effects of these permits. Complainant Akishia Hunter spent months living in a hotel with her children to escape the environmental health hazards until she no longer had the funds to do so. Now, despite owning her own home, her family has been forced to rely on the goodwill of relatives to ensure her son can sleep safely without fear of an asthma attack. Complainant Victoria Thomas first saw her sister flee the neighborhood as she battled lesions in her lungs, inflamed by increasing levels of air pollutants. Her aunt, in an attempt to curb the mounting list of symptoms synonymous with poor air quality, relocated to Georgia. Binh Phung, seeing increased levels of respiratory distress in his own children, felt compelled to move his wife and three children out of the home they own on Beniteau and into

the home of relatives.

Figure 7

²⁸³ Based on Interview of Akishia Hunter by Allyson Putt, October 21, 2021 (edited for clarity) (transcript available upon request).

At its core, EGLE has participated in the creation of a class of internally displaced peoples, forced from their homes by decades of compounding discriminatory decisions that have resulted in this man-made crisis.



The impacts go beyond any one individual. They have begun to alter the character of a community that residents hold dear. Complainants see more homes left vacant and

lawns left unkept. Services, which saw an uptick before the project was greenlighted, have slowed. The parks where parents took their children to play are no longer bustling with young energy. Instead, families stay inside or travel outside the neighborhood to enjoy the outdoors, made nervous by the risks that may linger in the air.

The communities surrounding the FCA facilities are disproportionately composed of people of color when compared to state and national averages. As such, the adverse effects, rooted in EGLE's granting of these permits, continues to impose disproportionate negative impacts on people of color in violation of 40 C.F.R. Part 7.

B. EGLE's failure to perform cumulative impact analyses under Rule 228 as has subjected resident to an adverse disparate impact and preserves a pattern or practice of discrimination on the basis of race, color, and national origin in violation of 40 C.F.R. Part 7.

Throughout the permitting processes for Permits to Install 14-19 and 33-20, EGLE received numerous comments urging it to consider the cumulative impacts associated with the air pollution that will result not only from the activities authorized by the permits themselves, but also the existing sources of air pollution in the area, such as Stellantis' Jefferson North Assembly Plant.

Comments submitted by the Great Lakes Environmental Law Center regarding permit to install 14-19 urged EGLE to require Stellantis to utilize its authority under Rule 228 to conduct a cumulative impact analysis of toxic air contaminants to ensure emissions from the Mack Avenue Assembly Plant authorized by permit to install 14-19 along with emissions from other

nearby sources such as the Jefferson North Assembly Plant would not cause maximum ambient impacts above ambient toxic air contaminant standards set by EGLE.²⁸⁴ The Great Lakes Environmental Law Center again urged EGLE to utilize its authority under Rule 228 in its comments on permit to install 33-20.²⁸⁵

As noted above, Rule 225 required Stellantis to demonstrate that the toxic air contaminant emissions from the emissions units for which it was seeking a permit would not cause maximum ambient impacts above either the initial risk screening level or initial threshold screening level. Additionally, Rule 228 is an omnibus provision that provides EGLE with the authority to determine that the emissions limits established pursuant to Rule 225 are not sufficient to protect the public health. In such a situation, EGLE may establish a lower emission rate considering, among other things, synergistic or additive effects from other toxic air contaminants.¹²⁷

There is evidence that suggests EGLE's use of Rule 228 was warranted. Both Permits authorized significant expansions of auto assembly operations which resulted in

increases in volatile organic compound emissions. Combined, the emissions units authorized by both Permits would have the potential to emit over 400 tons of volatile organic compounds per year.²⁸⁶ These emissions will join with the nearly 800 tons of volatile organic compounds that the Jefferson North Assembly Plant emitted in 2019, meaning that the Jefferson North and Mack Avenue Assembly Plants together now have the potential to emit 1,200 tons of volatile organic compounds every year.²⁸⁷

Volatile organic compounds consist of a family of chemical compounds, many of which are toxic air contaminants. Per air quality modeling analyses provided by Stellantis, the toxic air contaminant emissions from the emission units authorized by the Permits will cause the following maximum ambient impacts:

²⁸⁴ Great Lakes Environmental Law Center, Comments to the Michigan Department of Environment, Great Lakes, and Energy Re. Proposed Permit to Install 14-19 (Apr. 23, 2019), Appendix 8.

²⁸⁵ Great Lakes Environmental Law Center, Comments to the Michigan Department of Environment, Great Lakes, and Energy Re. Proposed Permit to Install 33-20 and 14-19A (Sept. 18, 2020), Appendix 9. ¹²⁷ Mich. Admin. Code R, 336.1228(1).

²⁸⁶ See, supra, Table 1.

²⁸⁷ Id.

Table 5 - Maximum Ambient Impact Resulting from Toxic Air Contaminant Emissions Regarding Permits to Install 14-19 and 33-20		
	Potential to Emit - Stellantis Permits to Install	
	Maximum Ambient Impact - 14-19, 14-19A	Maximum Ambient Impact - Permit to Install 33-20
Formaldehyde	0.058	0.005
Cumene	0.023	0.020
Ethylbenzene	0.1	0.091

The toxic air contaminant emissions from the emissions units authorized by the Permits will be joining the pre-existing emissions from Jefferson North Assembly Plant which, according to the EPA's Toxic Release Inventory, released 19,249 pounds of ethylbenzene and 2,398 pounds of cumene.²⁸⁸

Background levels of formaldehyde, cumene, and ethylbenzene are also elevated. While there are no toxic air contaminant monitors in the immediate vicinity of the Stellantis

Complex, the annual average concentration from a number of monitors in southern Wayne County show levels of toxic air contaminants above the initial risk screening level:

<p>Table 6 - Average Annual Background Concentrations of Selected Toxic Air Contaminants along with the Combined Maximum Impact Resulting from Permit to Install 14-19A and 33-20 as well the Initial Risk Screening Level.</p>

²⁸⁸ Supra, note 17.

	Formaldehyde	Cumene	Ethylbenzene
Average Annual Background Concentration (10-year Average, in ug/m3)	3.3	0.24	2.5
Combined Maximum Impact from Permits to Install 14-19A, 33-20 (Annual Average, in ug/m3)	0.063	0.043	0.191
IRSL (Annual Average in ug/m3)	0.080	0.100	0.400
SRSL (Annual Average in ug/m3)	0.8	1	4

As illustrated by Table 6, ambient air quality monitors in southern Wayne County have routinely detected background concentrations of formaldehyde, cumene, and ethylbenzene at concentrations above the initial risk screening level, which is the threshold at which the contaminant will produce an upper-bound cancer risk of 1 in one million. Particularly troubling are background concentrations of formaldehyde, which exist at concentrations three times the secondary risk screening level. The secondary risk screening level is the threshold at which the contaminant will produce an upperbound cancer risk of 1 in 100,000. In short, emissions authorized by the Permits will contribute to already high levels of toxic air contaminants in the neighborhood nearby the Plants. Despite being specifically requested to do so, EGLE refused to utilize its omnibus authority under Rule 228 to conduct a cumulative impact analysis regarding any toxic air contaminant.

There is also evidence that EGLE has disproportionately underutilized Rule 228 in communities of color. In total, Rule 228 has been the source of authority for establishing permit conditions in seven Title V permits.

Table 7 - EJSCREEN Report - Title V Permits with Rule 228 Conditions and Stellantis Jefferson North and Mack Avenue Assembly Plants

	% People of color within 1mile radius	Environmental Indicator Percentile Compared to Michigan, 1-mile radius - Air Toxics Cancer Risk
Lafarge Alpena 1435 Ford Ave., Alpena, MI	6%	10th percentile
St. Mary's Cement 16000 Bells Bay Rd., Charlevoix, MI	7%	24th percentile
DTE Electric Company - Monroe Plant 3500 East Front St., Monroe, MI	N/A (Nobody resides within 1-mile of Plant)	N/A (Nobody resides within 1-mile of Plant)
Gerdau MacSteel Monroe 3000 East Front St., Monroe, MI	15%	24th percentile
Dow Chemical Company 1790 Building, Washington St., Midland, MI	9%	94th percentile

AK Steel 4001 Miller Rd., Dearborn, MI	16%	97th percentile
Marathon Petroleum 1300 South Fort St., Detroit, MI	76%	97th percentile
Stellantis Jefferson North and Mack Avenue Assembly Plants	98%	83rd percentile

As illustrated above, despite communities of color living with a disproportionate burden of toxic air emissions, EGLE generally has used the omnibus provision in Rule 228 to establish stricter toxic air contaminant emissions limits in communities with relatively few people of color. Further, based on EJSCREEN’s environmental indicator for air toxics cancer risk, EGLE has utilized Rule 228 in many instances in which the air toxic cancer risk for the immediately adjacent community is relatively minor particularly when compared to the air toxic cancer risk for those living nearby the Stellantis Complex.

Despite the risks posed by a significant increase in automotive assembly Plant operations in a community that is made up almost entirely of Black persons and other persons of color, EGLE refused to utilize its existing authority under Rule 228 to even conduct a cumulative impact analysis to examine whether toxic air contaminants that will be emitted by the Plant along with background concentrations would lead to a significant adverse impact. Given the high ambient levels of numerous toxic air contaminants that have been detected in Wayne County, it is likely that background levels of some toxic air contaminants, including formaldehyde, cumene, and ethylbenzene, are above their respective initial risk screening levels, which are healthbased, ambient air quality standards set by EGLE. It is certain that the emission units authorized by the Permits will contribute additional toxic air contaminant emissions and contribute to an increase in what is likely to be elevated background levels of pollution.

EGLE’s refusal to utilize its authority under Rule 228 to require a cumulative impact analysis

regarding any of the Permits and to establish stricter permit conditions regarding toxic air contaminants has caused an adverse impact on the predominantly Black resident living nearby the Stellantis Plants. There is also strong evidence that EGLE has utilized its omnibus authority under Rule 228 in a manner that disproportionately benefits White communities. While communities of color historically have suffered from a disproportionate level of toxic air pollutant concentrations, EGLE has predominantly utilized Rule 228 to establish permit conditions for facilities in White communities that have a lower air toxic cancer risk compared to the community nearby the Stellantis Plants. In short, EGLE’s historically disproportionate use of Rule 228 to benefit White communities combined with its refusal to utilize its authority to examine the cumulative impacts associated with a number of toxic air contaminants that will be emitted by the emissions units authorized by the Permits in combination with background concentrations of toxic air contaminant concentrations despite ambient air quality data in the area indicating that levels of several toxic air contaminants are already above EGLE’s initial risk screening level amounts to an adverse and disparate impact in violation of 40 CFR 7.35(b).

Additionally, EGLE’s persistent and longstanding refusal to require a cumulative impact analysis in air permitting decisions that will impact communities of color established a policy or practice of failing to require such analyses despite them being relevant analyses for Title VI compliance. The EPA has noted that EPA regulations prohibit both intentional and unintentional discrimination, and that unintentional discrimination may occur if the “cumulative impacts of pollution from a wide range of sources” disproportionately and adversely impacts individuals of a certain race, color, or national origin.²⁸⁹ In Michigan, communities of color are disproportionately subjected to high levels of air pollution from a number of sources. Despite numerous requests, EGLE has never required a cumulative impact analysis before issuing any permit to install. In essence, it has established a policy or practice of willful blindness in regards to examining whether a permit to install will result in a disproportionately adverse impact on communities of color. Where a state department has failed to develop a

policy to ensure Title VI compliance, such a failure may amount to a Title VI violation in and of

²⁸⁹ Draft Title VI Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs

itself.²⁹⁰

V. Jurisdiction

Section 601 of Title VI of the Civil Rights Act of 1964, 42 U.S.C.S. § 2000d et seq., provides that no person shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity covered by Title VI. Congress intended that its policy against discrimination by recipients of Federal assistance be implemented, in part, through administrative rulemaking. EPA has promulgated Title VI regulations that apply to state agencies that are recipients of financial assistance from the EPA.

Title VI specifically defines what amounts to a program or activity. It is defined as “all of the operations...of a department, agency, special purpose district, or other instrumentality of a State or of a local government...any part of which is extended Federal financial assistance.”²⁹¹ If any part of an entity receives federal funds, the whole entity is covered by Title VI.²⁹² Additionally, EPA’s Title VI regulations define a recipient as “any state... instrumentality of a state...[or] public agency... to which Federal financial assistance is extended directly or through another recipient.”²⁹³ EGLE has received millions as recipients of financial assistance from the EPA.²⁹³

According to the EPA’s Draft Title VI Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs, EPA may investigate cases in which the permitted activity is one of several activities, which together present a cumulative impact.²⁹⁴ In this complaint, the complainants are alleging that a series of

permits to install issued by EGLE - specifically permits to install 14-19, 14-19A, and 3320 -

²⁹⁰ See, *United States v. Maricopa County*, 915 F.Supp. 2d 1073 (2012).

²⁹¹ 42 U.S.C. § 2000d-4a.

²⁹² *Ass’n. of Mex.-Am. Educ. v. California*, 195 F.3d 465, 474-5 (9th Cir. 1999), rev’d in part on other grounds, 231 F.3d 572 (9th Cir. 2000) (en banc) ¹³⁵ 40 CFR § 7.25.

²⁹³ Spending by Prime Award (Awarding Agency EPA, Recipient Environment Great Lakes and Energy).

USASPENDING.GOV, <https://usaspending.gov/#/search>.

²⁹⁴ U.S. EPA, Draft Title VI Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs (Draft Recipient Guidance) and Draft Revised Guidance for Investigating Title VI Administrative Complaints Challenging Permits (Draft Revised Investigation Guidance) 65 Fed. Reg. 39,650, at 39,698 (Jun. 27, 2000)

have created a cumulative impact that has had a discriminatory effect on the people of color living nearby the Jefferson North and Mack Avenue Assembly Plants. While these permits have been issued over the course of two years, the most recent permit - permit to install 33-20 - was issued on May 12, 2021. This permit authorized Stellantis to reactivate another paint line, which further increased air pollutant emissions in the neighborhood.

According to 40 CFR 7.120(b)(2), a Title VI complaint must be filed within 180 calendar days of the alleged discriminatory act. This complaint is being filed on November 8, 2021, which is 180 days from May 12, 2021 - the date on which permit to install 33-20 was issued. As such, this complaint is timely.

VI. Relief

A. Voluntary Relocation

The decisions by EGLE and other government entities have significantly harmed the ability of residents to sell their property. Adequate financial and administrative support must be provided for the purchase of new properties, relocation costs, and addressing long term impacts of displacement such as mental health assistance, employment and education resources, and access to healthcare. Any program must be voluntary and provide compensation that allows families to relocate to areas that increase their livelihoods and quality of life and not be limited to the market price of property that has been negatively impacted by State actions. Community control of land through transfer to a community land trust is of utmost importance to forgo further industrial encroachment on the community in the future.

B. Home Repair

The structural integrity of homes along Beniteau have been severely impacted by ongoing activities at the facilities. Numerous have exhibited foundation and structural damage including collapsing porches and cracking exterior walls. The costs of necessary repairs are significant and mounting. The community benefits agreement, which offered home repair grants up to \$15,000 to income eligible property owners, did nothing to account for the damage to properties that continued after initial repairs were completed. Residents that choose to stay in their homes must be properly compensated for these damages through a home repair solution that is truly equitable and corresponds to the seriousness of the burdens placed upon this community.

C. Require Cumulative Impact Analysis During Permitting Process

While EGLE has been empowered to conduct cumulative impacts analyses via Rule 228 and EPA's Title VI guidance, it has thus far failed to do so. By abdicating its responsibility to conduct a cumulative impact assessment under Rule 228, EGLE is left with no means of knowing whether cumulative impacts, including those arising from these permits, will have a significant discriminatory adverse effect.

Simply put, the agency cannot then know whether it is complying with its Title VI obligations in the process of issuing permits in communities like this one without conducting cumulative impact analyses. More importantly, EGLE must also use the results of a cumulative impact assessment meaningfully. This includes being prepared to deny permits that have discriminatory adverse effects like those described in this complaint.

Sincerely,

/s/Nicholas Leonard

Nicholas Leonard
Andrew Bashi
Great Lakes Environmental Law Center
4444 Second Avenue
Detroit, MI 48201 313-782-3372
nicholas.leonard@glelc.org
andrew.bashi@glelc.org

Attorneys for residents Victoria Thomas, Robert Shobe, Tanisha Burton, Akishia Hunter, and Binh Phung.

SPACE

STONY POINT ACTION COMMITTEE FOR THE ENVIRONMENT

PO Box 100 • Stony Point, NY 10980 • 845-429-2020

stonypointer@optonline.net

Christopher Lawrence
U.S. Department of Energy
Management and Program Analyst
Transmission Permitting and Technical Assistance Office
of Electricity

May 18, 2020

Email: Christopher.Lawrence.hq.doe.gov

Re: Comments on DOE Docket No. PP-362-1: Champlain Hudson Power Express, Inc. and CHPE, LLC: Application to Rescind Presidential Permit and Application for Presidential Permit, application of Champlain Hudson Power Express, Inc. (CHPEI) and CHPE, LLC (together, the Applicants) to transfer to CHPE, LLC ownership of the facilities owned by CHPEI and authorized for cross-border electric power transmission via a high voltage direct current line (the Project) by Presidential Permit No. PP-362, dated October 6, 2014 (PP-362 or the Permit).²⁹⁵ The Project is being developed by TDI, a Blackstone portfolio company.

www.transmissiondevelopers.com

The Stony Point Action Committee for the Environment, (SPACE), is grateful that the Department of Energy has provided this opportunity for the submission of written public comments. We are writing this letter to express our concern about the need for greater

²⁹⁵ On April 6, 2020, the Applicants requested that the Department of Energy (DOE) amend, or in the alternative, rescind and reissue PP-362 to enable the transfer of the Permit from CHPEI to its affiliate CHPE, LLC (the Application). On April 16, 2020, the Department of Energy (DOE) issued a Notice of “Application to Rescind Presidential Permit; Application for Presidential Permit; Champlain Hudson Power Express, Inc. and CHPE, LLC.” (the Notice). 85 Fed. Reg. 74 (April 16, 2020). <https://www.energy.gov/oe/services/electricitypolicy-coordination-and-implementation/international-electricity-regulation/pending-applications>

transparency in the review process. The project has changed multiple times and in fact the trajectory change within the County of Rockland , New York will have a significant financial impact on the communities of Stony Point, Haverstraw, West Haverstraw, Village of Haverstraw and Clarkstown “The Rockland Host Communities”.

In addition there are circumstances and points of note that have not been brought to the attention of the residents of Rockland County NY.

December 6, 2019 is the first time that the route trajectory details, the Change of Ownership, the Route Resolutions for the New Rockland Route have been seen, (website below)

<https://chpexpress.com/overview-of-public-documents/regulatory-documents/>

Proposed Route Modifications for the Champlain Hudson Power Express

12/06/2019

Transmission Developers Inc. submitted a petition to the New York Public Service Commission to approve modifications to the route contained in the Champlain Hudson Power Express Article VII Permit. The refinements, which affect less than nine percent of the permitted route are the result of ongoing project engineering, environmental improvements, and discussions with community stakeholders. Taken together, the modifications provide a net environmental benefit and are consistent with the existing permit.

[Cover Letter](#)

[Route Modification Petition](#)

[Appendix A – Location of Facilities on USGS Mapping](#)

[Appendix B – Location of Facilities on NYSDOT Mapping](#)

[Appendix C – Location of Facilities on Aerial Photography](#) [Appendix](#)

[D – Resolutions from Communities](#)

[Appendices E and F – Real Estate and Newspaper Articles](#)

[Appendix G – Environmental Impacts](#)

[Appendix I – Analysis of Local Laws](#)

SOURCE: TDI Website (May 18, 2020)

How then can the public understand the repercussions of the “New Route” without knowing what the trajectory is as presented within these maps? The Towns of, Stony Point, Haverstraw, Clarkstown and the villages of Haverstraw and West Haverstraw compromise “The Rockland Host Communities” have signed an MOU or as it has been renamed Appendix D- Route Resolutions, (posted on the NYS PSC web site on December 6, 2019) with the Champlain Hudson Power Express Inc. (“CHPE”) for monetary compensation that requires the Host

Communities to support whatever modifications CHEPI wants to make. These documents were signed respectfully on April 4, 2018 (Village of Haverstraw) April 5, 2018 (Town of Haverstraw) April 4, 2018 (Village of West Haverstraw), March 28, 2018 (Town of Clarkstown) and on

July 25, 2018 (Town of Stony Point). The filing on the New York State Public Service Commission is incomplete as it states clearly that there is a “Haverstraw Bay Community Benefits Fund” Package attached to these documents, (Appendix D- Route Resolutions) yet it is not filed, where is this document, more so whose name is it in and how does this filing affect the unknown monies offered to the Haverstraw Bay Community Benefits Package? Do the deadlines within these documents affect their overall legality?

Attached is an (undated) copy of a letter from Stony Point Supervisor, Jim Monaghan to the members of the NYS Public Service Commission expressing town support of the amended route.

- a. I object to the supervisor’s assertion in the letter that TDI has *“thoroughly briefed public officials and members of the public on this modification...”* and object to his *“complete support for the proposed CHPE route modification within Rockland County”* without requiring that TDI provide the route maps at the time the meetings were held.
- b. In fact we believe that the letters submitted in support of the New North Rockland Route by the supervisors of the Town of Stony Point, the Village of Haverstraw and the Village of West Haverstraw were all form letters that TDI expected the municipalities to sign as a condition of having agreed to receive monies as promised in the Memorandum of Understanding (MOU).

Please address the repercussions to the Host Communities, with “The Applicants’ April 6, 2020 application states the Applicants “request that PP-362 be amended to name CHPE, LLC as the permittee, or in the alternative, rescinded and reissued to CHPE, LLC, to reflect the recent internal corporate restructuring that resulted in the creation of CHPE, LLC for business-related purposes.” And the relationship as delineated within Appendix D Route Resolutions.

Please identify the entity that has made the application and will in fact be the “Legal Entity” of record. The presentations made to the communities were done under the name TDI-Transmission Developers Inc., and the Champlain Hudson Power Express Inc. (their letterhead on the MOU signed by the Town of Stony Point), what entity is actually going to build within our communities and are any of the legal documents under different names applicable or legal?

The Champlain Hudson Power Express / TDI-Transmission Developers Inc. have indicated its interest in increasing the capacity of the line to 1250 MW which is not in compliance with the Appendix D Route Resolutions, “MOU’s” as submitted to the NYS PSC on December 6, 2019 – titled, “Resolutions from Communities.” nor is that in compliance with the existing PP-362.

Websites accessed on May 18, 2020

Transmission Developers Inc. <http://www.transmissiondevelopers.com/>

Champlain Hudson Power Express <https://chpexpress.com/project-overview/>

The NEW ROUTE through Rockland County requires a public hearing:

Has TDI addressed the NYS Department of Transportation (DOT) letter of May 22, 2018 concerning the new, redirected route of CHPE onto NYS Route 9W, through the center of the business district in Stony Point?

- a. An Environmental Impact Study and public hearing needs to be conducted for the NEW NORTH ROCKLAND ROUTE now being proposed through Route 9W – the main North Rockland COMMERCIAL Corridor for the Town of Stony Point and Village of West Haverstraw, NY.
- b. Town of Stony Point, Village of West Haverstraw and the Village of Haverstraw residents and businesses, many of whom had attended the public hearings and were familiar with the original Hudson River Route along the CSX Railroad, now want to better understand the details of the NEW ROUTE and its potential impacts along the Route 9W Business District.
- c. The DOE **MUST ADDRESS, how the Right of Way for CHPEI will be managed** within the “New North Rockland” Route as it pertains to existing infrastructure, what happens when repairs need to be made, who has legal jurisdiction over the right of way especially in an emergency situation?
- d. Will CHPE be installed over existing utilities such as – cable, telephone, electric and or natural gas lines, sewer and water lines?
- e. The expected construction disruption to our local businesses on the Route 9W corridor is of even greater concern now with many of our local business still reeling from the economic impact of the shutdown during COVID-19.
- f. SPACE has long-advocated that CHPEI has to provide funds for an independent engineering firm, hired by the Town of Stony Point, to review the site plan/maps and ensure that the town’s best interests and potential for future use of the 9W Business Corridor are being developed in an environmentally sustainable way that protects the future town use and capability of the 9W Business Corridor to support smart growth and allow for utility access that supports and does not interrupt future potential economic development.

Riverkeeper has withdrawn it's support for the TDI CHPE Project

In a PRESS RELEASE dated November 18, 2019, Riverkeeper, Inc. withdrew its initial support for the permitting of the Champlain Hudson Power Express, citing the changing energy landscape in New York State that includes the advancement of renewable energy due soon to come online and reductions in overall energy demand today that has drastically changed since April 2013 when Riverkeeper had originally supported the project after receiving assurances that it would not lead to the construction of new dams in Canada.

However, it now seems evident that CHPEI would likely increase the risk of new dam construction, which would lead to greater river and habitat destruction as well as additional negative impacts to the health, quality of life and cultural identity of Canada's indigenous communities.

SPACE agrees with Riverkeeper that this development represents a significant change that questions the entire premise of CHPE actually being a source of renewable "green" energy.

Riverkeeper's PRESS RELEASE states:

"Riverkeeper has consistently stated that we would only support the CHPE project if it did not result in additional dam construction in Canada. In the six and one half years since our original decision not to oppose the permitting of CHPE, new risks have arisen that, if TDI does build this project and bring 1,000 MW of Canadian Hydropower to New York, it would increase the likelihood that new Canadian dams would be constructed. This construction would cause significant adverse impacts to the flow, function and ecology of the rivers and northern boreal forests involved, which lie in an area where the amount of power produced per acre of flooded land is among the lowest in the world."

The entire Riverkeeper statement can be read at this link:

<https://www.riverkeeper.org/news-events/news/energy/riverkeeper-statement-regarding-thechamplain-hudson-power-express/>

Thank you for your interest and consideration of our comments. *Susan*

Filgueras

Susan Filgueras

Board Member, SPACE

Stony Point Action Committee for the Environment, Inc. 30

Years of Environmental Advocacy & Education in 2020

stonypointer@optonline.net

845-429-2020

Facebook: [@SPACEStonyPoint](#)

CC:

Rockland County Executive,	Ed Day,	CountyExec@co.rockland.ny.us
Supervisor Town of Stony Point,	Jim Monyahan	supervisor@townofstonypoint.org
Town of Stony Point Councilman,	Karl Javenes,	Kjavenes@townofstonypoint.org
Town of Stony Point Councilman,	Michael Puccio,	MPuccio@townofstonypoint.org
Town of Stony Point Councilman,	Thomas Basile,	TBasile@TownofStonyPoint.org
Town of Stony Point Councilman,	Paul Joachim,	PJoachim@townofstonypoint.org
Supervisor Town of Haverstraw,	Howard Phillips,	supervisor@townofhaverstraw.org
Mayor Village of Haverstraw,	Michael Kohut	michael.kohut@vohny.com

Mayor Village of West Haverstraw, Robert R. D'Amelio
130 Samsondale Avenue,
West Haverstraw, NY 10993

Hon. Michelle L. Phillips Secretary
Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

By email to:

Hon. Michelle L. Phillips secretary@dps.ny.gov

|Annie Wilson awilsonenergy@gmail.com

Jacqui Dreschler jacqui flute456@gmail.com

SPACE Board of Directors stonypointer@optonline.net

Media

Attachments:

- 1- May 22, 2018- NYS Dept of Transportation Letter, RE: SEQR 18-053 Route 9W Champlain Hudson Pipeline Permit Rockland County
- 2- May 13, 2020 -Town of Stony Point Letter of Support
- 3- May 13, 2020 Village of Haverstraw Letter of Support
- 4- May 13, 2020 Village of West Haverstraw Letter of Support
- 5- CHPE- Appendix D Route Resolutions



May 22, 2018

Via email only: secretary@dps.ny.gov

Hon. Kathleen H. Burgess
Secretary to the Commission
New York State Public Service Commission
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

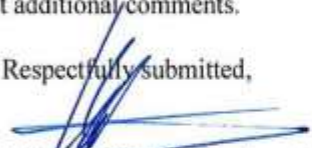
Re: Case 10-T-0139
Application of Champlain Hudson Power Express, Inc.
Permit Modification to Art. VII Route

Dear Secretary Burgess:

The NYS Department of Transportation (NYSDOT) submits the following in relation to the above referenced project. Subsequent to the April 2013 Article VII permit, it has become necessary that the applicant make certain adjustments to its proposed route. It has become apparent that some of the applicant's proposed adjustments will have unacceptable impacts, as proposed, upon Route 9W in Rockland County. The NYSDOT has brought its concerns to the attention of the applicant, and those concerns are more fully articulated in a May 1, 2018 letter, a full, true and complete copy of which is enclosed for the record.

NYSDOT reserves the right to submit additional comments.

Respectfully submitted,



KEITH D. MARTIN, Associate Attorney
NYS Department of Transportation
Division of Legal Affairs

KDM/kdm
KDM4117_FINAL / DLA 17-06074

cc: via email only
Donna K. Hintz, Associate Attorney, NYSDOT

Re: Case 10-T-0139
Application of Champlain Hudson Power Express, Inc.
Permit Modification to Art. VII Route
p. 2 of 2

Cc's cont'd. via email only

Heather Behnke, Asst. Counsel, NYS Dept. Pub. Service -- Heather.Behnke@dps.ny.gov
Anthony Belsito, OGC, NYS Dept. Pub. Service -- Anthony.Belsito@dps.ny.gov
David Drexler, OGC, NYS PSC -- David.Drexler@dps.ny.gov
Graham Jesmer, Asst. Counsel, NYS Dept. Pub. Service -- Graham.Jesmer@dps.ny.gov
Ashley Moreno, Asst. Counsel, NYS Dept. Pub. Service -- Ashley.Moreno@dps.ny.gov

Active Parties



Department of
Transportation

ANDREW M. CUOMO
Governor

PAUL A. KARAS
Acting Commissioner

LANCE MacMILLAN, P.E.
Acting Regional Director

May 1, 2018

Gene Martin
Transmission Developer Inc.
Pieter Schuyler Building
600 Broadway
Albany, NY 12207

Re: SEQR 18-053 Route 9W
Champlain Hudson Pipeline Permit
Rockland County

Dear Sir:

Thank you for meeting with the Department of Transportation on April 4, 2018. The purpose of this letter is to outline our concerns from the meeting.

Our primary concern is with the location of the proposed pipeline within the highway pavement section of Route 9W. 17 NYCRR 131.8(b)(2) of the Accommodation of Utilities in the State Highway Right of Way states:

(2) All new or relocated longitudinal installations of underground elements shall be located in accordance with the following in order of preference:

- (i) Between the outer edge of sidewalk and the Rights-of-Way line;*
- (ii) Underneath the sidewalk;*
- (iii) Between the curb and sidewalk;*
- (iv) Underneath the roadway pavement of a parking lane;*
- (v) Underneath the roadway pavement, only if other locations are neither feasible nor practicable, and only if the Department after examination finds that the safety and integrity of the highway traffic operations and highway maintenance will not be jeopardized by the installation and subsequent maintenance of the utility.*

The Department's engineering opinion is that other locations in the Right-of-Way (ROW) are both practicable and feasible; furthermore, construction within the highway pavement area will severely impact traffic. Subsequent maintenance operations in, and around the vault structures will also be a further impediment to traffic. Consistent with Section 131.8(b)(2) the Department requests that the proposed transmission line and structures be moved beyond the outer edge of the pavement and as close to the ROW line as possible.

If the applicant determines that site conditions warrant installation within the highway pavement area and no practicable and feasible location can be found elsewhere within the ROW, the applicant may submit an Engineering Report to the Department for review. If the Department finds that the safety and integrity of the highway traffic operations and highway maintenance will not be jeopardized by the installation and subsequent maintenance of the utility and unusual physical conditions are present, the Department may grant an exemption. This exemption will be for limited, finite sections and not on a project wide basis. The applicant will be required to perform soil borings and or other soil investigations to demonstrate that construction in the highway pavement area is the only practicable and feasible alternative to qualify for this exemption.

Gene Martin
May 1, 2018

Page 2

The Department's second concern is with the method of construction. The open-cut method of construction is prohibited unless no other method is feasible. The applicant may submit a written request with justification to use the open-cut method of construction. Please refer to Section 3.03.01 from the *Requirements for the Design and Construction of Underground Installations within the State Highway Right of Way* which reads as follows:

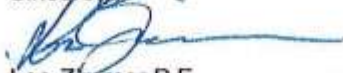
3.03.01 Installation by open excavation will be permitted only upon demonstration of necessity or other conditions which warrant such a procedure. Subsurface rock formations, excessive presence of boulders, excessive and damaging skin friction during jacking operations, or insufficient Right-of-Way to allow jacking, boring, etc., may constitute a necessity. Where an ongoing or upcoming construction contract requires pavement removal and/or construction of new pavement, the Region may consider approving an open cut.

The open cut exemption will only be approved for limited finite sections and not on a project-wide basis.

In addition to these requirements, the applicant must prepare a Maintenance and Protection of Traffic Plan (M&PT) and a Restoration Plan commensurate with the level and intensity of the construction. The applicant is reminded that all operations shall be conducted so as not to interfere with, interrupt, or endanger the operation of traffic, nor damage, destroy, or endanger the integrity of State facilities or adjacent properties. If work impacts an existing traffic signal system, the applicant shall so indicate this on the plans. The applicant shall repair any damage caused to existing signal installations. Traffic-actuated phases shall remain actuated, and signals operating within signal systems shall remain coordinated during construction.

I would be more than happy to arrange another meeting to discuss your project and we look forward to receiving plans that address the Department's concerns. If you have any questions please contact me at (845) 437-3396, or Lee.Zimmer@dot.ny.gov.

Sincerely,



Lee Zimmer P.E.

Region 8 Permits and Signals



Town Of Stony Point

JAMES MONAGHAN
OFFICE OF THE SUPERVISOR
74 East Main Street
Stony Point, New York 10980



Tel: (845) 786-2716 ext 111 ~ Fax (845) 786-3248
www.townofstonypoint.org
Email: supervisor@townofstonypoint.org

To the Members of the NYS Public Service Commission,

I am writing on behalf of the Town of Stony Point in support of the route amendments proposed for the Champlain Hudson Power Express project. The project will pass through our community. Representatives from Transmission Developers, Inc. ("TDI") have thoroughly briefed public officials and members of the public on this modification and our [Town/Village] has passed a supportive resolution. In March of 2018, we signed a Memorandum of Understanding with other municipalities and TDI in an effort to move the process forward.

The originally-permitted Rockland County route encountered significant public opposition from residents, businesses and all elected officials representing the communities that would be affected by the project, which passed under a Revolutionary War battlefield, along the fringe of a Revolutionary War cemetery and behind municipal recreational facilities and homes. Something better needed to be achieved and, through hard work and sound engineering, it was.

We are grateful that TDI listened to the ideas and concerns of both the community and its elected officials and are now proposing an amendment to their Article VII permit seeking approval for a modified route in Rockland County. The new route, which travels from the Town of Stony Point through the Town of Haverstraw and the Villages of West Haverstraw and Haverstraw, returning to the Hudson River in Clarkstown, involves sections of primary business districts along Route 9W, and the impacts of construction in these areas has been discussed with business owners and residents who would be impacted by this change.


TDI undertook an extensive outreach program prior to proposing the modification including hosting public forums in order to better educate the public about the project, address any concerns and to obtain input on the modified route. The community understands that there will be intermittent traffic interruptions during the two year period of seasonal construction, but we are confident that the careful mitigation strategies being developed by TDI will reduce negative impacts as much as is possible. TDI understands the potential impact on business and homeowners and has been frank with the community about these possible temporary impacts.

We note that TDI has committed to a generous community benefit program and an expansive road restoration and streetscape fund to compensate for construction impacts. The company also has committed to establishing a local outreach office, having an onsite employee available during construction and a hot line for prompt handling of concerns. In all respects, construction work will be closely coordinated with NYS DOT in order to minimize negative community impacts. For example, TDI has agreed to modify construction periods based on neighborhood requests and is willing, when appropriate, to perform work at night. We are aware that the 9W corridor falls under DOT jurisdiction and that they are working with TDI to address engineering issues. In no way is our support intended to sidestep DOT's authority but, rather, to simply express our preference for this alternate to the permitted route.

All in all, TDI has worked closely and constructively with our residents, our businesses and our leaders to protect the places where we live and work.

We would like to have entered into the record our complete support for the proposed CHPE route modification within Rockland County. Thank you for your consideration of this statement of community support.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Monaghan". The signature is written in a cursive, flowing style with a large initial "J".

Jim Monaghan
Supervisor, Town of Stony Point



TOWN OF HAVERSTRAW
HOWARD T. PHILLIPS, JR.
Supervisor

ISIDRO CANCEL
JOHN J. GOULD
Councilmen

MICHAEL J. GAMBOLI
Director of Finance

VINCENT J. GAMBOLI
HECTOR L. SOTO
Councilmen

WILLIAM M. STEIN
Town Attorney

May 8, 2020

To the Members of the NYS Public Service Commission,

I am writing on behalf of the Town of Haverstraw in support of the route amendments proposed for the Champlain Hudson Power Express project. The project will pass through our community. Representatives from Transmission Developers, Inc. ("TDI") have thoroughly briefed public officials and members of the public on this modification and our [Town/Village] has passed a supportive resolution. In March of 2018, we signed a Memorandum of Understanding with other municipalities and TDI in an effort to move the process forward.

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TOWN OF HAVERSTRAW

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All in all, TDI has worked closely and constructively with our residents, our businesses and our leaders to protect the places where we live and work. We would like to have entered into the record our complete support for the proposed CHPE route modification within Rockland County. Thank you for your consideration of this statement of community support.

Sincerely,



HOWARD T. PHILLIPS, JR.
Supervisor

VILLAGE CLERK

MAYOR 0. Fred Miller

Robert R. D'Amelio

DEPUTY VILLAGE CLERK/TREASURER

Catherine B. Kopf

TRUSTEES

Frances R. Nardi VILLAGE

Robert J. Lagrow John S. Edwards

Ramon Lopez

Ralph W. Kirschkel CONFIDENTIAL



ATTORNEY

ASST. TO THE

MAYOR
Katherine M. Welsh

May 5, 2020

To the Members of the NYS Public Service Commission,

I am writing on behalf of The Village of West Haverstraw in support of the route amendments proposed for the Champlain Hudson Power Express project. The project will pass through our community. Representatives from Transmission Developers, Inc. ("TDI") have thoroughly briefed public officials and members of the public on this modification and our Village has passed a supportive resolution. In March of 2018, we signed a Memorandum of Understanding with other municipalities and TDI in an effort to move the process forward.

The originally-permitted Rockland County route encountered significant public opposition from residents, businesses and all elected officials representing the communities that would be affected by the project, which passed under a Revolutionary War battlefield, along the fringe of a Revolutionary War cemetery and behind municipal recreational facilities and homes. Something better needed to be achieved and, through hard work and sound engineering, it was.

We are grateful that TDI listened to the ideas and concerns of both the community and its elected officials and are now proposing an amendment to their Article VII permit seeking approval for a modified route in Rockland County. The new route, which travels from the Town of Stony Point through the Town of Haverstraw and the Villages of West Haverstraw and Haverstraw, returning to the Hudson River in Clarkstown, involves sections of primary business districts along Route 9W, and the impacts of construction in these areas has been discussed with business owners and residents who would be impacted by this change.

TDI undertook an extensive outreach program prior to proposing the modification including hosting public forums in order to better educate the public about the project, address any concerns and to obtain input on the modified route. The community understands that there will be intermittent traffic interruptions during the two year period of seasonal construction, but we are confident that the careful mitigation strategies being developed by TDI will reduce negative impacts as much as is possible. TDI understands the potential impact on business and homeowners and has been frank with the community about these possible temporary impacts.

We note that TDI has committed to a generous community benefit program and an expansive road restoration and streetscape fund to compensate for construction impacts. The company also has committed to establishing a local outreach office, having an onsite employee available during construction and a hot line for prompt handling of concerns. In all respects, construction work will be closely coordinated with NYS DOT in order to minimize

negative community impacts. For example, TDI has agreed to modify construction periods based on neighborhood requests and is willing, when appropriate, to perform work at night. We are aware that the 9W corridor falls under DOT jurisdiction

130 Samsondale Avenue • West Haverstraw • New York • 10993 • (845) 947-2800 • Fax (845) 947- 1560
www.westhaverstraw.org

and that they are working with TDI to address engineering issues. In no way is our support intended to sidestep DOT's authority but, rather, to simply express our preference for this alternate to the permitted route.

All in all, TDI has worked closely and constructively with our residents, our businesses and our leaders to protect the places where we live and work.

We would like to have entered into the record our complete support for the proposed CHPE route modification within Rockland County. Thank you for your consideration of this statement of community support.

Sincerely,



Robert R. D'Amelio
Mayor

X. Town of Stony Point

MOU CHAMPLAIN HUDSON POWER EXPRESS

A motion was made by Supervisor Monaghan, seconded by Councilman White and **unanimously carried by a voice vote of all board members present, with Councilman Basile voting no** to approve the Memorandum of Understanding for the Champlain Hudson Power Express as submitted.

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (the "MOU") effective as of January 23, 2017 by and among Champlain Hudson Power Express, Inc. ("CHPEI"), the Town of Clarkstown, the Town of Haverstraw, the Village of Haverstraw, the Village of West Haverstraw, and the Town of Stony Point (the "Rockland Host Communities") in Rockland County, New York State (each a "Party", and collectively the "Parties")

WITNESSETH THAT

WHEREAS, CHPEI is developing the Champlain Hudson Power Express Project (the "Project"), a 1,000 MW underground and underwater high voltage, direct current ("HVDC") electric transmission facility extending from the United States' border with Canada to Queens, New York;

WHEREAS, CHPEI is in receipt of all federal and state siting approvals necessary in order to authorize the construction and operation of the Project, namely, a Presidential Permit issued by the U.S. Department of Energy, a permit issued by the U.S. Army Corps of Engineers, and a Certificate of Environmental Compatibility and Public Need issued by the New York State Public Service Commission (the "Article VII Certificate");

WHEREAS, the Project route within Rockland County, as approved by the Article VII Certificate, includes approximately 5.5 miles located on right-of-way property owned by CSX Transportation, Inc. (the "Rail ROW") and approximately 0.5 miles on U.S. Route 9W in the Town of Clarkstown (the "Original Rockland Routing");

WHEREAS, feedback from the local community with regard to the Original Rockland Routing has led CHPEI to develop an alternative routing (the "New Rockland Routing") that will increase the Project route mileage along U.S. Route 9W to a total of approximately 7.1 miles, with an additional 1.1 miles on other incidental parcels of property and Park Road in Stony Point as such alternative routing is shown in the attached Exhibit "A";

WHEREAS, the New Rockland Routing eliminates reliance on the Rail ROW, with a view towards decreasing environmental, historical, and community impacts and increasing constructability;

WHEREAS, the New Rockland Routing extends along U.S. Route 9W northwards from the Town of Clarkstown through the Villages of West Haverstraw and Haverstraw and the Town of Stony Point;

WHEREAS, making the New Rockland Routing part of the Project design will entail seeking and obtaining an amendment to the Article VII Certificate, and, potentially, amendments to the Project's federal siting approvals (the "Federal Permits");

WHEREAS, CHPEI, the Rockland Host Communities, and engineers and consultants advising or employed by the Rockland Host Communities have reviewed the New Rockland Routing substantially in the form that CHPEI intends to submit to the New York State Public Service Commission (the "PSC") as part of its application for a modification of the Article VII Certificate (the "PSC Application") and, potentially, to the U.S. Department of Energy and the U.S. Army Corps of Engineers as part of applications for amendments to the Federal Permits;

WHEREAS, CHPEI anticipates applying to the Rockland County Industrial Development Agency (the "Rockland IDA") for the financial certainty afforded qualifying projects pursuant to Title 1 of Article 18-A of the New York State General Municipal Law, and, in particular, for a Payment In Lieu of Taxes Agreement, which will ensure that a mutually-agreed to and predictable stream of annual revenue is paid by CHPEI to the Rockland Host Communities and the relevant school districts (the "IDA Application");

WHEREAS, CHPEI believes that endorsement of the Project and the New Rockland Routing by the legislative bodies of the Rockland Host Communities is an

essential prerequisite to filing the PSC Application, the IDA Application, and applications for amendments to the Federal Permits;

WHEREAS, CHPEI intends to file the PSC Application in early 2018 and the IDA Application sometime thereafter with on-the-record support from the Rockland Host Communities as provided for herein;

WHEREAS, CHPEI acknowledges that the New Rockland Routing will entail installing the Project cables in local roads and in a state highway that serves as a primary transportation artery extending through a particularly dense and diverse urban and suburban landscape, and such installation will cause temporary disruptions and inconveniences to citizens and businesses;

WHEREAS, recognizing the distinct character of these disruptions and inconveniences, CHPEI has developed a program of community benefits, including \$9 million in streetscape improvements (the "Streetscape Funding") and a Haverstraw Bay Community Benefit Fund in the amount of \$22 million to support capital projects within the Rockland Host Communities (the "Fund");

WHEREAS, specific details regarding the Fund, the Streetscape Funding, and the real property taxes (collectively, the "Benefits Package") to be paid by CHPEI to the Rockland Host Communities and the relevant school districts have been assembled and are set forth in a written proposal, which is attached hereto as Exhibit "B";

WHEREAS, CHPEI is prepared to publicly release the details of the Benefits Package and include it in the PSC Application, with a recommendation that it be incorporated into the terms and conditions of the revised Article VII Certificate;

WHEREAS, the Rockland Host Communities are prepared to publicly announce their support for the Project (including for the New Rockland Routing); and

WHEREAS, the legislative bodies of the Rockland Host Communities have approved the terms of this MOU and have authorized and directed their chief executive officers to subscribe on their behalfs to this MOU;

NOW, THEREFORE, in consideration of the foregoing, the terms stated below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. PUBLIC ANNOUNCEMENT

As soon as possible following execution of this MOU, the Parties will agree upon a joint public statement regarding execution of the MOU. This statement will include expressions of support for the Project (including for the New Rockland Routing) from the Rockland Host Communities and will announce CHPEI's offer of the Benefits Package. The Parties believe that time is of the essence with respect to release of this statement, and they intend to begin work on the text as soon as practicable after this MOU has been signed by all of the Parties.

2. FOLLOW-UP ACTIVITIES

The Parties will cooperate in good faith with respect to implementation of the Benefits Package and preparation and filing of the PSC Application and the IDA Application. Furthermore, in the event that CHPEI determines to file any applications for amendments to the Federal Permits in connection with the New Rockland Routing, the Rockland Host Communities will indicate their on-the-record support for any such applications in a timely manner.

3. CONDITION PRECEDENT

The Parties understand and agree that implementation of the Benefits Package is contingent upon CHPEI undertaking the multi-year Project construction phase, after securing all necessary permits and approvals, including, without limitation, a revised Article VII Certificate approving the New Rockland Routing; obtaining full debt and equity funding for all of the costs of Project construction; and advancing to commercial operations on a timeline that substantially conforms to the anticipated development schedule, which currently calls for construction to commence by 2019. Furthermore, the Parties understand and agree that 50% of the Fund will be made available at the time of the completion of the Project's construction funding (the "First Fund Installment") and the remaining 50% will be made available at the time of initiation of Project commercial operations (the "Second Fund Installment"). The Streetscape Funding will be disbursed during the Project construction period pursuant to agreed-upon protocols, but in no event will any disbursement occur earlier than the date upon which the First Fund Installment is made available. For the purposes of this MOU, "completion of the

Project's construction funding" will be deemed to have occurred as of the date upon which funds sufficient to satisfy all anticipated costs of Project construction have been made available to CHPEI through the securing of equity and debt investments in CHPEI for that purpose and "initiation of Project commercial operations" will be deemed to have occurred as of the date upon which testing and commissioning of the Project is completed, the New York Independent System Operator has been advised of the energizing of the Project, and the first transmission of supply pursuant to a commercial arrangement with a customer or customers has taken place.

4. HANDLING OF AMOUNTS DEPOSITED IN AND EFFECT OF SUSPENSION OF PROJECT DEVELOPMENT ON THE FUND

The Rockland County Host Communities will have discretion regarding the disbursement of their allocable portions of the Fund and the Streetscape Funding, consistent with applicable law and the Benefits Package itself. Neither the First Fund Installment nor the Second Fund Installment shall be refundable. Similarly, disbursed Streetscape Funding shall not be refundable.

5. CONSTRUCTION PERIOD PROTOCOLS

In the preparation and execution of its Project construction program in the Rockland Host Communities, CHPEI will take into account local conditions and appropriately mitigate disruptions and inconveniences to the greatest possible extent.

6. CONSENT TO USE AND OCCUPANCY

To the extent that any of the Rockland Host Communities are the actual owners of any lands, rights-of-way, or other property interests upon which the New Rockland Routing is located, such municipal body hereby consents to the use and occupancy of such lands by CHPEI and the Project.

7. FURTHER ASSURANCES

The Parties agree that they will, at any time and/or from time to time and upon request, do, execute, acknowledge and deliver, or will cause to be done, executed, acknowledged and delivered, all such further acts, instruments, documents, forms, certificates, and assurances as may reasonably be required for the accomplishment of the purposes of the Parties as set forth in this MOU.

GENERAL PROVISIONS

A. ASSIGNMENT

No Party may assign this MOU without the prior written consent of the other Party, which consent shall not unreasonably be withheld, delayed, or conditioned.

B. GOVERNING LAW AND FORUM

This MOU shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof, and the Parties irrevocably consent to the exclusive jurisdiction of the courts of the State of New York.

D. AMENDMENTS

No change or modification of this MOU shall be valid unless it is in writing and signed by each and every Party hereto.

E. NO PARTNERSHIP OR AGENCY RELATIONSHIP

Notwithstanding any other provision contained herein, this MOU shall not constitute, create, or imply any partnership, joint venture, agency, or fiduciary relationship between the Parties.

F. COSTS

Each Party shall bear its own costs and expenses in connection with all matters relating to this MOU, including, without limitation, the costs and expenses of its legal and other advisors and internal costs and expenses.

G. LIMITATION OF LIABILITY

Under no circumstances shall a Party or any of their respective officers, directors, members, partners, shareholders, employees, agents, or affiliates be liable for: consequential, incidental, or indirect damages; lost profits or opportunities; increased cost of capital; loss of income, revenue, or use; or other business interruption costs, losses, or damages, regardless of whether the same: arise out of statute or operation of law; sound in tort, contract, or otherwise; or relate to or are the result of any performance, mis-performance, or non-performance of any activity contemplated by this MOU.

IN WITNESS WHEREOF, the Parties have executed this MOU by affixing the signatures of the undersigned duly authorized representatives as of the date appearing in the spaces indicated.

Champlain Hudson Power Express, Inc.

EXECUTIVE SESSION

At 7:30 pm a motion was made by Supervisor Monaghan, seconded by Councilman Basile and **unanimously carried** by a voice vote of those board members present to adjourn into executive session to discuss personnel matters regarding Parks & Recreation. No further votes will be taken.

ADJOURN

The January 23, 2018 Stony Point Town Board meeting adjourned at 7:45pm and no additional votes were taken.

Respectfully submitted

Joan Skinner, Town Clerk

XI. Town of Haverstraw

24. MEMORANDUM OF UNDERSTANDING WITH CHAMPLAIN HUDSON
POWER EXPRESS, INC.

RESOLVED, THAT THE TOWN BOARD OF THE TOWN OF HAVERSTRAW
DOES HEREBY AUTHORIZE THE SUPERVISOR TO ENTER INTO A
MEMORANDUM OF UNDERSTANDING WITH CHAMPLAIN HUDSON POWER
EXPRESS, INC. IN REGARD TO THE PROPOSED ELECTRIC TRANSMISSION
FACILITY ALONG ROUTE 9W.

HAVERSTRAW TOWN BOARD
JANUARY 22, 2018

STATE OF NEW YORK }
ROCKLAND COUNTY } ss:
TOWN OF HAVERSTRAW }

I, Raquel Ventura, Clerk of said Town of Haverstraw, County of Rockland, hereby certify that I have compared the foregoing resolution of the Town Board, January 22, 2018, with the original now on file in said office, and find the same to be a true and correct transcript therefrom and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the seal of said Town of Haverstraw, this 5th day of April 2018.

Raquel Ventura Town Clerk

XII. Village of West Haverstraw

RESOLUTION AUTHORIZING EXECUTION OF MEMORANDUM OF UNDERSTANDING WITH CHAMPLAIN HUDSON POWER EXPRESS, INC.

WHEREAS, Champlain Hudson Power Express, Inc. ("CHPEI") is developing the Champlain Hudson Power Express Project (the "Project"), a 1,000 MW underground and underwater high voltage, direct current

("HVDC") electric transmission facility extending from the United States' border with Canada to Queens, New York; and

WHEREAS, CHPEI has represented that is in receipt of all federal and state siting approvals necessary in order to authorize the construction and operation of the Project, subject to amendments made necessary by recent changes to the project route within Rockland County (the "New Rockland Routing") intended to decrease environmental, historical, and community impacts and increase constructability, namely, a Presidential Permit issued by the U.S. Department of Energy, a permit issued by the U.S. Army Corps of Engineers, and a Certificate of Environmental Compatibility and Public Need issued by the New York State Public Service Commission (the "Article VII Certificate"); and

WHEREAS, the New Rockland Routing, as approved by the Article VII Certificate, includes approximately 7.1 miles on U.S. Route 9W in Rockland County, of which approximately .9 mile lies within the Village of West Haverstraw; and

WHEREAS, CHPEI anticipates applying to the Rockland County Industrial Development Agency (the "Rockland IDA") for the financial certainty afforded qualifying projects pursuant to Title 1 of Article 18-A of the New York State General Municipal Law, and, in particular, for a Payment In Lieu of Taxes Agreement, which will ensure that a mutually-agreed to and predictable stream of annual revenue is paid by CHPEI to the Rockland communities impacted by the project (the "Rockland Host Communities") and the relevant school districts; and

WHEREAS, CHPEI believes that endorsement of the Project and the New Rockland Routing by the legislative bodies of the Rockland Host Communities is an essential prerequisite to filing the PSC Application, the IDA Application, and applications for amendments to the Federal Permits; and

WHEREAS, CHPEI acknowledges that the New Rockland Routing will entail installing the Project cables in local roads and in a state highway that serves as a primary transportation artery extending through a particularly dense and diverse urban and suburban landscape, and such installation will cause temporary disruptions and inconveniences to citizens and businesses; and

WHEREAS, recognizing the distinct character of these disruptions and inconveniences, CHPEI has developed a program of community benefits, including \$9 million in streetscape improvements (the "Streetscape Funding") and a Haverstraw Bay Community Benefit Fund in

the amount of \$22 million to support capital projects within the Rockland Host Communities (the "Fund"); and

WHEREAS, specific details regarding the Fund, the Streetscape Funding, and the real property taxes (collectively, the "Benefits Package") to be paid by CHPEI to the Rockland Host Communities and the relevant school districts have been assembled and are set forth in a written Memorandum of Understanding between and amongst the parties; and

WHEREAS, CHPEI is prepared to publicly release the details of the Benefits Package which includes benefits to the Village of West Haverstraw totaling \$4,728,572, and estimated annual tax revenues of approximately \$95,000; and

WHEREAS, the Village Board has reviewed the material terms of the MOU, and, subject to final review and approval by the Village Attorney with respect to form and legality, supports its execution,

NOW, THEREFORE, in consideration of the foregoing, the Village Board hereby expresses its support for the Project, and approves MOU, subject to final review by the Village Attorney as to form and legality, and authorizes the Mayor to execute same on behalf of the Village, and to take such other and further steps, and to execute such other documents, as may be required to effectuate the terms of the parties' agreement.

Ayes: Mayor D'Amelio, Trustee Nardi, Trustee Lagrow, Trustee Lopez, Trustee Kirschkel
Noes: None

VILLAGE OF WEST HAVERSTRAW
STATE OF NEW YORK
COUNTY OF ROCKLAND

I, CATHERINE B. KOPF, DEPUTY CLERK OF SAID VILLAGE OF WEST HAVERSTRAW, COUNTY OF ROCKLAND, HEREBY CERTIFY THAT I HAVE COMPARED THE FOREGOING COPY OF THIS RESOLUTION – VILLAGE BOARD MINUTES – January 3, 2018 – WITH THE ORIGINAL NOW ON FILE IN SAID OFFICE, AND FIND THE SAME TO BE A TRUE AND CORRECT TRANSCRIPT THEREFROM AND OF THE WHOLE OF SUCH ORIGINAL.

IN TESTIMONY WHEREOF, I HAVE SUBSCRIBED
MY NAME AND AFFIXED THE SEAL OF
SAID VILLAGE OF WEST HAVERSTRAW,
THIS 4th day of April 2018.



DEPUTY VILLAGE CLERK

XIII. Village of Haverstraw

Incorporated
Village Of Haverstraw

DEPUTY MAYOR
EMILY DOMINGUEZ

TRUSTEES
RAFAEL BUENO
THOMAS WATSON, JR.
JOEL I. A. SANTANA

MAYOR
MICHAEL F. KOHUT

Municipal Building
40 New Main Street
Haverstraw, New York 10927
Tele: (845) 429-0300 Fax: (845) 429-0353

CLERK/TREASURER
JUDITH R. CURCIO

VILLAGE ATTORNEY
J. NELSON HOOD, JR.

RESOLUTION # 3 – 2018

Introduced by: Rafael Bueno
Seconded by: Emily Dominguez

NOW THEREFORE BE IT RESOLVED:

That the Board of Trustees of the Village of Haverstraw has approved, and authorized the Mayor to sign, the following Memorandum of Understanding by and among Champlain Hudson Power Express, Inc. (CHPEI), the Town of Clarkstown, the Town of Haverstraw, the Village of West Haverstraw, the Town of Stony Point, and the Village of Haverstraw in Rockland County, New York:

Memorandum of Understanding

WHEREAS, CHPEI is developing the Champlain Hudson Power Express Project (the "Project"), a 1,000 MW underground and underwater high voltage, direct current ("HVDC") electric transmission facility extending from the United States' border with Canada to Queens, New York;

WHEREAS, CHPEI is in receipt of all federal and state siting approvals necessary in order to authorize the construction and operation of the Project, namely, a Presidential Permit issued by the U.S. Department of Energy, a permit issued by the U.S. Army Corps of Engineers, and a Certificate of Environmental Compatibility and Public Need issued by the New York State Public Service Commission (the "Article VII Certificate");

WHEREAS, the Project route within Rockland County, as approved by the Article VII Certificate, includes approximately 5.5 miles located on right-of-way property owned by CSX Transportation, Inc. (the "Rail ROW") and approximately 0.5 miles on U.S. Route 9W in the Town of Clarkstown (the "Original Rockland Routing");

WHEREAS, feedback from the local community with regard to the Original Rockland Routing has led CHPEI to develop an alternative routing (the "New Rockland Routing") that will increase the Project route mileage along U.S. Route 9W to a total of approximately 7.1

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miles, with an additional 1.1 miles on other incidental parcels of property and Park Road in Stony Point as such alternative routing is shown in the attached Exhibit "A";

WHEREAS, the New Rockland Routing eliminates reliance on the Rail ROW, with a view towards decreasing environmental, historical, and community impacts and increasing constructability;

WHEREAS, the New Rockland Routing extends along U.S. Route 9W northwards from the Town of Clarkstown through the Villages of West Haverstraw and Haverstraw and the Town of Stony Point;

WHEREAS, making the New Rockland Routing part of the Project design will entail seeking and obtaining an amendment to the Article VII Certificate, and, potentially, amendments to the Project's federal siting approvals (the "Federal Permits");

WHEREAS, CHPEI, the Rockland Host Communities, and engineers and consultants advising or employed by the Rockland Host Communities have reviewed the New Rockland Routing substantially in the form that CHPEI intends to submit to the New York State Public Service Commission (the "PSC") as part of its application for a modification of the Article VII Certificate (the "PSC Application") and, potentially, to the U.S. Department of Energy and the U.S. Army Corps of Engineers as part of applications for amendments to the Federal Permits;

WHEREAS, CHPEI anticipates applying to the Rockland County Industrial Development Agency (the "Rockland IDA") for the financial certainty afforded qualifying projects pursuant to Title 1 of Article 18-A of the New York State General Municipal Law, and, in particular, for a Payment In Lieu of Taxes Agreement, which will ensure that a mutually-agreed to and predictable stream of annual revenue is paid by CHPEI to the Rockland Host Communities and the relevant school districts (the "IDA Application");

WHEREAS, CHPEI believes that endorsement of the Project and the New Rockland Routing by the legislative bodies of the Rockland Host Communities is an essential prerequisite to filing the PSC Application, the IDA Application, and applications for amendments to the Federal Permits;

WHEREAS, CHPEI intends to file the PSC Application in early 2018 and the IDA Application sometime thereafter with on-the-record support from the Rockland Host Communities as provided for herein;

WHEREAS, CHPEI acknowledges that the New Rockland Routing will entail installing the Project cables in local roads and in a state highway that serves as a primary transportation artery extending through a particularly dense and diverse urban and suburban landscape, and such installation will cause temporary disruptions and inconveniences to citizens and businesses;

WHEREAS, recognizing the distinct character of these disruptions and inconveniences, CHPEI has developed a program of community benefits, including \$9 million in streetscape improvements (the "Streetscape Funding") and a Haverstraw Bay Community Benefit Fund in the amount of \$22 million to support capital projects within the Rockland Host Communities (the "Fund");

WHEREAS, specific details regarding the Fund, the Streetscape Funding, and the real property taxes (collectively, the "Benefits Package") to be paid by CHPEI to the Rockland Host Communities and the relevant school districts have been assembled and are set forth in a written proposal, which is attached hereto as Exhibit "B";

WHEREAS, CHPEI is prepared to publicly release the details of the Benefits Package and include it in the PSC Application, with a recommendation that it be incorporated into the terms and conditions of the revised Article VII Certificate;

WHEREAS, the Rockland Host Communities are prepared to publicly announce their support for the Project (including for the New Rockland Routing); and

WHEREAS, the legislative bodies of the Rockland Host Communities have approved the terms of this MOU and have authorized and directed their chief executive officers to subscribe on their behalfs to this MOU;

NOW, THEREFORE, in consideration of the foregoing, the terms stated below, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. PUBLIC ANNOUNCEMENT

As soon as possible following execution of this MOU, the Parties will agree upon a joint public statement regarding execution of the MOU. This statement will include expressions of support for the Project (including for the New Rockland Routing) from the Rockland Host Communities and will announce CHPEI's offer of the Benefits Package. The Parties believe that time is of the essence with respect to release of this statement, and they intend to begin work on the text as soon as practicable after this MOU has been signed by all of the Parties.

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2. FOLLOW-UP ACTIVITIES

The Parties will cooperate in good faith with respect to implementation of the Benefits Package and preparation and filing of the PSC Application and the IDA Application.

Furthermore, in the event that CHPEI determines to file any applications for amendments to the Federal Permits in connection with the New Rockland Routing, the Rockland Host Communities will indicate their on-the-record support for any such applications in a timely manner.

3. CONDITION PRECEDENT

The Parties understand and agree that implementation of the Benefits Package is contingent upon CHPEI undertaking the multi-year Project construction phase, after securing all necessary permits and approvals, including, without limitation, a revised Article VII Certificate approving the New Rockland Routing; obtaining full debt and equity funding for all of the costs of Project construction; and advancing to commercial operations on a timeline that substantially conforms to the anticipated development schedule, which currently calls for construction to commence by 2019. Furthermore, the Parties understand and agree that 50% of the Fund will be made available at the time of the completion of the Project's construction funding (the "First Fund Installment") and the remaining 50% will be made available at the time of initiation of Project commercial operations (the "Second Fund Installment"). The Streetscape Funding will be disbursed during the Project construction period pursuant to agreed-upon protocols, but in no event will any disbursement occur earlier than the date upon which the First Fund Installment is made available. For the purposes of this MOU, "completion of the Project's construction funding" will be deemed to have occurred as of the date upon which funds sufficient to satisfy all anticipated costs of Project construction have been made available to CHPEI through the securing of equity and debt investments in CHPEI for that purpose and "initiation of Project commercial operations" will be deemed to have occurred as of the date upon which testing and commissioning of the Project is completed, the New York Independent System Operator has been advised of the energizing of the Project, and the first transmission of supply pursuant to a commercial arrangement with a customer or customers has taken place.

4. HANDLING OF AMOUNTS DEPOSITED IN AND EFFECT OF SUSPENSION OF PROJECT DEVELOPMENT ON THE FUND

The Rockland County Host Communities will have discretion regarding the disbursement of their allocable portions of the Fund and the Streetscape Funding, consistent with applicable

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law and the Benefits Package itself. Neither the First Fund Installment nor the Second Fund Installment shall be refundable. Similarly, disbursed Streetscape Funding shall not be refundable.

5. CONSTRUCTION PERIOD PROTOCOLS

In the preparation and execution of its Project construction program in the Rockland Host Communities, CHPEI will take into account local conditions and appropriately mitigate disruptions and inconveniences to the greatest possible extent.

6. CONSENT TO USE AND OCCUPANCY

To the extent that any of the Rockland Host Communities are the actual owners of any lands, rights-of-way, or other property interests upon which the New Rockland Routing is located, such municipal body hereby consents to the use and occupancy of such lands by CHPEI and the Project.

7. FURTHER ASSURANCES

The Parties agree that they will, at any time and/or from time to time and upon request, do, execute, acknowledge and deliver, or will cause to be done, executed, acknowledged and delivered, all such further acts, instruments, documents, forms, certificates, and assurances as may reasonably be required for the accomplishment of the purposes of the Parties as set forth in this MOU.

GENERAL PROVISIONS

A. ASSIGNMENT

No Party may assign this MOU without the prior written consent of the other Party, which consent shall not unreasonably be withheld, delayed, or conditioned.

B. GOVERNING LAW AND FORUM

This MOU shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflict of laws principles thereof, and the Parties irrevocably consent to the exclusive jurisdiction of the courts of the State of New York.

D. AMENDMENTS

No change or modification of this MOU shall be valid unless it is in writing and signed by each and every Party hereto.

E. NO PARTNERSHIP OR AGENCY RELATIONSHIP

Notwithstanding any other provision contained herein, this MOU shall not constitute, create, or imply any partnership, joint venture, agency, or fiduciary relationship between the Parties.

F. COSTS

Each Party shall bear its own costs and expenses in connection with all matters relating to this MOU, including, without limitation, the costs and expenses of its legal and other advisors and internal costs and expenses.

G. LIMITATION OF LIABILITY

Under no circumstances shall a Party or any of their respective officers, directors, members, partners, shareholders, employees, agents, or affiliates be liable for: consequential, incidental, or indirect damages; lost profits or opportunities; increased cost of capital; loss of income, revenue, or use; or other business interruption costs, losses, or damages, regardless of whether the same: arise out of statute or operation of law; sound in tort, contract, or otherwise; or relate to or are the result of any performance, mis-performance, or non-performance of any activity contemplated by this MOU.

- End MOU -

Motion Passes: All

I, Judith R. Curcio, Clerk/Treasurer of the Village of Haverstraw, New York, do hereby certify that the above resolution was adopted at a Regular Meeting of the Board of Trustees held on January 2, 2018 and is in full force and effect and that said resolution has not been altered, amended or revoked and is in full force and effect.

Dated: April 4, 2018
Haverstraw, New York


Judith R. Curcio

Seal of Municipality

XIV. Town of Clarkstown

**TOWN OF CLARKSTOWN
OFFICE OF THE TOWN ATTORNEY
INTEROFFICE MEMORANDUM**

TO: Justin Sweet, Town Clerk

FROM: Office of the Town Attorney/kh

SUBJECT: Memorandum of Understanding by and among Town of Clarkstown, Town of Haverstraw, Village of Haverstraw, Village of West Haverstraw, Town of Stony Point and Champlain Hudson Power Express, Inc. (CHPEI) Regarding the Champlain Hudson Power Express Project

DATE: March 28, 2018

Enclosed is a copy of the Town Board Resolution, adopted January 30, 2018, regarding the above, together with a copy of the fully executed Memorandum of Understanding, for filing in your Office.

Thank you.



Enclosures

RESOLUTION AUTHORIZING THE SUPERVISOR TO SIGN A MEMORANDUM
OF UNDERSTANDING REGARDING THE CHAMPLAIN HUDSON
POWER EXPRESS PROJECT

WHEREAS, Champlain Hudson Power Express, Inc. (CHPEI) is developing the Champlain Hudson Power Express Project, a 1,000 MW underground and underwater high voltage, direct current electric transmission facility extending from the United States' border with Canada to Queens, New York; and

WHEREAS, CHPEI is in receipt of all federal and state siting approvals necessary in order to authorize the construction and operation of the Project from the U.S. Department of Energy, the U.S. Army Corps of Engineers, and the New York State Public Service Commission; and

WHEREAS, the Project will connect with the PSC-approved route in the Town of Clarkstown; and

WHEREAS, Rockland County Host Communities should expect to receive benefits in real property taxes and disbursements from the Haverstraw Bay Community Benefit Fund as a direct result of the Project; and

WHEREAS, the Haverstraw Bay Community Benefit Fund is being established by CHPEI in recognition of the localized inconvenience to Host Communities during construction and will support capital projects in each municipality on a pro-rated basis related to miles along public rights of way, municipal property rights and other factors;

NOW, THEREFORE, be it

RESOLVED, that the Town Board authorizes the Supervisor to sign a Memorandum of Understanding with Champlain Hudson Power Express, Inc., the Town of Haverstraw, the Village of Haverstraw, the Village of West Haverstraw, and the Town of Stony Point in order to share in the Haverstraw Bay Community Benefit Fund.

Dated: January 30, 2018

TB 01-30-18 TA RES CHPEI-kh

Adapted

SPACE

STONY POINT ACTION COMMITTEE FOR THE ENVIRONMENT
PO Box 100 • Stony Point, NY 10980 • 845-429-2020 stonypointer@optonline.net

Honorable Tom Costello
N.Y. State Public Service Commission
3 Empire State Plaza
Albany, N.Y. 12223

December 1, 2020

Re: 20104 / 10-T-0139 Champlain Hudson Power Express: Virtual Public Statement Hearing To Be Held Regarding Champlain Hudson's Siting Amendments

The Stony Point Action Committee for the Environment, (SPACE), is grateful that the New York Public Service Commission has provided this opportunity for the submission of written public comments. We are writing this letter to express our concern about the need for greater transparency in the review process. The project has changed multiple times and in fact the trajectory change within the County of Rockland, New York will have a significant financial impact on the communities of Stony Point, Haverstraw, West Haverstraw, Village of Haverstraw and Clarkstown "The Rockland Host Communities".

Attached is our letter dated May 23, 2020, that was sent first to the DOE and then to the NYS Public Service Commission, it appears that exactly what we stated as concerns is happening. The CHPE LLC and CHPE Properties (aka "CHPE") project as is being developed bears very little resemblance to the project that is being tailored by CHPE LLC and CHPE Properties, Inc. today. There have been substantive changes, many without the public's knowledge. Such as, CHPE's filing for an LLC, on April 16, 2020⁽³⁾.

In addition CHPE has amended the Certificate of Environmental Compatibility and Public Need, referencing documents back to 2010. CHPE has stated that to meet their financial obligation we need to rush through the review, page 9 point 20. It is simply too much material to review and offer substantive comments when actually quite a bit of new information has been added. We have not seen the Construction details, when will the plan be made available to the Public? Why are the Towns and the tax payers now responsible for CHPE LLC's financial investments?

Leaving several very obvious questions.

Would the Commission have even considered a Merchant function project of this magnitude as an LLC in 2010 ⁽²⁾?

CHPE LLC and CHPE Properties, Inc. filed a Motion on November 23, 2020, "Request for exception from Disclosure". **Would the commission allow for the same privilege of financial secrecy to other Merchant Function companies or existing Utility companies such as Con Ed, O&R, Central Hudson and NYSEG?**

Are the residents of New York State being protected under the new business arrangements as approved. What if any analysis has been done to determine the financial risk to the residents of New York State?

1- What are the impacts to the “Host Communities” as CHPE has become an LLC, especially noting that their exit strategy is abandonment of all infrastructure in NYS for this project.

Why have both the Mayor of New York City and the Governor stated that CHPE will be replacement power for Indian Point. Is this fact or conjecture? At what point in the CHPE application process did the NYS Public Service Commission specify that [the purpose of?]CHPE would be replacement power for Indian Point?

Indian Point 1 is closed and Indian Point 2 will be closed in April or May of 2021, CHPE has yet to begin construction, is CHPE needed?

Appendix D Resolutions of Communities, titled by CHPE and filed on the Matter Master on 12-619, are in fact the Memorandums of Understanding with the Towns, IS AN INCOMPLETE DOCUMENT,

<http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=10-t-0139>

65	12/06/2019	Exhibits	Appendix D: Resolutions from Communities	Champlain Hudson Power Express, Inc.
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The documents clearly state there is an EXHIBIT B, it appears to be the document that lays out how much money each Town will be paid and what is expected of them – is not attached to the filed documents on the matter master , **WHY?**

The agreements are not with CHPE LLC and CHPE Properties, Inc, (new CHPE) they are with the Champlain Hudson Power Express Inc. CHPEI, are they legal?

All of the deadlines stated within these documents have expired.

In addition these agreements spell out how and when each of the Towns MUST endorse the project. That is expected in exchange for accepting the payments outlined in the MOU.

We feel that the politics behind this application, have compromised our elected officials, whether or not the project is right for our communities, our elected officials did not have the option but to accept what CHPE offered or risk being left out and forced to host the project anyway, and then pay for it to be built. So, the moral of the story was “to take the money. It is the best you will get, AND you will support our project.”

To date all letters from Rockland County have been identical, who is writing these letters on behalf of the Towns?

Appendix D, Route Resolutions, Has CHPE has incorrectly marked Route 9W as Route 202.

In the ***APPLICATION OF CHPE, LLC AND CHPE PROPERTIES, INC. FOR AN AMENDMENT TO CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED, filed 10-9-2020***, pgs. 22 to24, pgs. 36 to 37, specific to Rockland County. CHPE has contradicted itself on several points in their previously filed documents, and simply by omission and re-definition they have managed to hide the issues of financial impact on the Host Communities, Emanate Domaine, physical infrastructure and the difficulties of the construction

that they are now admitting to in the newly released,

Page 3, point 6- Minor Route Change- what parameters were used to determine that the changes were minor?

Page 4, point 7- work with stake holders -Jen White stated at a Jan 2018 Chamber of Commerce meeting in the Town of Stony Point that CHPE had made an offer for an amended route and either we accept the amended route or they would simply install the project on the original route.

Page 7, point 16- Rockland route was modified due to construction issues with CSX- CHPE led the public to believe that there was no issues with CSX. Why now is it stated as justification for the amended route?

Page 7, point 17- extensive negotiations with the DOT, where is the documentation and the public hearings for such negotiations, it has not been filed on the Commissions web site.

Page 7, point 17 -There are to be 7 splicing Locations- are these splicing vaults now taking place of the cooling stations? The approximate size of the impacted area for each splice location is 30' by 100' or less than 1/10th of an acre, pg-36.

Page 8, point 18, What additional facilities??

In view of the foregoing, the Applicants are requesting that the Commission approve the expansion of the ADZ in Rockland County to allow for the installation of splices, and related facilities, on private land as shown in the routing maps that accompany this Petition as Appendix D, see below map- they are incorrect Helen Hayes is not private property.

Page 9, point 20. We are now being pushed, so that the timeline is convenient to CHPE-

The Applicants also respectfully urge the Commission to act upon this Application in as timely a manner as possible. The New York Independent System Operator (“NYISO”) is currently studying the Project as part of Class Year 2019. Based on the latest available information, Applicant believes the NYISO will conclude its study processes in January 2021, which will trigger a requirement that Applicants post an estimated security of approximately \$190 million dollars for required upgrades as early as February/March 2021. If the Applicant does not timely post the required security, the Project must enter a new NYISO Class Year study, which would delay the Project (and all of its attendant benefits) by one or more years. In order to be in a position to post a security of this magnitude, the Applicants must have all permit modifications approved no later than January 2021 to enable financing to occur as early as February/March 2021. Accordingly, the Applicants respectfully request that the Commission approve the proposed amendment before the end of January 2021.

Any extended period of review in advance of final Commission action regarding this Application could jeopardize the prospects for the success of the very ambitious initiatives that have recently been enacted into law by both the State and NYC. In the above statement above made by CHPE LLC and CHPE Properties, has New York State and New York City specifically adopted initiatives and enacted laws to make CHPE more palatable to the public? Is this application being given special consideration that has not been afforded to other Merchant Function applications or Utility companies?

Footnote on page 9- SPACE objects to this statement as we believe that substantial changes have occurred and the EIS must be updated to include SPECIFIC information on the amended route. Especially with CHPE’s statement in point 10 as noted below.

12 “No hearing is required by the Commission here since the *proposed changes in the facility will not materially increase the environmental impacts or substantially change the location of the facility.*”

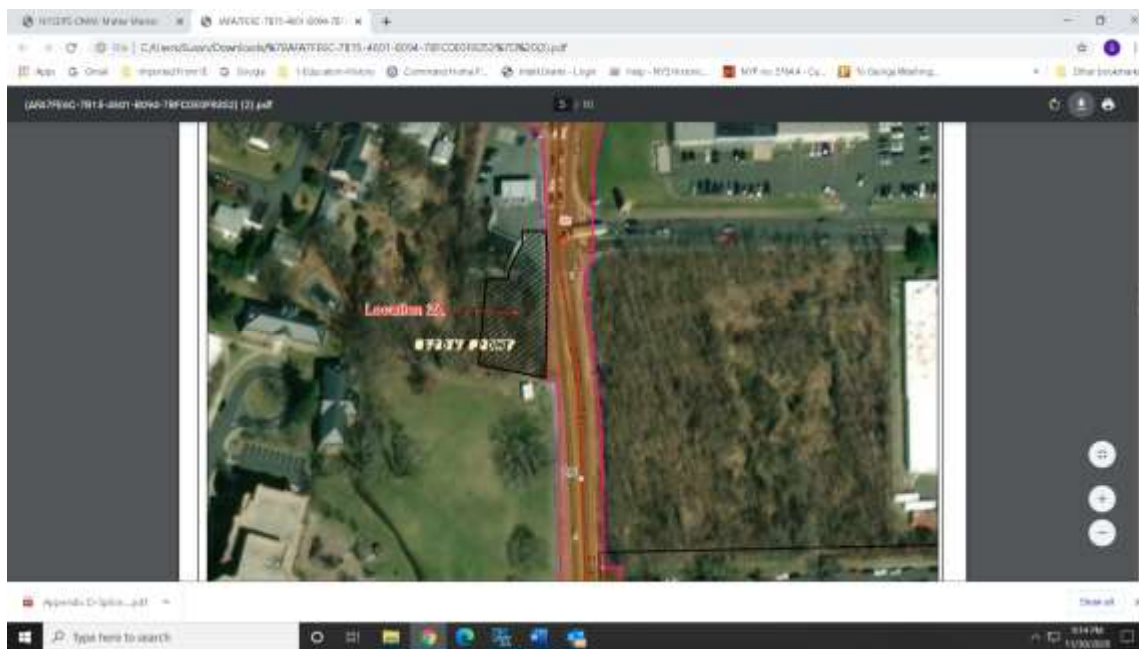
Page 10, Point 21,

“We note that the Amendment to the Certificate approved by us today creates **some potential inconsistencies between aspects or locations of certain project facilities** as shown on the newly approved maps and the narrative descriptions of such facilities as they appear in the following Certificate Conditions: 1 (general route description) and 2 (reference to Appendix B maps).

For the avoidance of doubt, those narrative descriptions are to be deemed updated and amended as may be necessary in order to conform them to the relevant As-built Design Drawings filed pursuant to Certificate Condition 139(b) following construction.”

Page 37, point 61, those related to construction and operation (e.g. Recreation; Visual and Aesthetic Resources; Noise; Public Health). In addition, the splice locations are not adjacent to bus stops, park and rides, or access to emergency facilities **such as hospitals**, fire stations, and police stations, and therefore should have no impact on these facilities.

Location 2 A sits at the bottom of the property Helen Hayes Rehabilitation Hospital is on.



- 1- **October 9, 2020** APPLICATION OF CHPE, LLC AND CHPE PROPERTIES, INC. FOR AN AMENDMENT TO CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED
- 2- **July 16, 2020.** See Case 20-E-0145: Petition of Champlain Hudson Power Express, Inc., CHPE Properties, Inc., and CHPE LLC for a Declaratory Ruling that a Series of Intra-Corporate Transactions are Not Transfers Subject to Review Under the Public Service Law or, in the Alternative, for Certain Approvals Pursuant to Sections 70 and 121 of the Public Service Law, Order Approving Transfers, July 17, 2020-
- 3- **April 6, 2020,** the Applicants requested that the Department of Energy (DOE) amend, or in the alternative, rescind and reissue PP-362 to enable the transfer of the Permit from CHPEI to its affiliate CHPE, LLC (the Application). On April 16, 2020, the Department of Energy (DOE) issued a Notice of “Application to Rescind Presidential Permit; Application for Presidential Permit; Champlain Hudson Power Express, Inc. and CHPE, LLC.” (the Notice). 85 Fed. Reg. 74 (April 16, 2020). <https://www.energy.gov/oe/services/electricity-policy-coordination-and-implementation/international-electricity-regulation/pending-applications>

May 23, 2020 letter excerpts:

In addition there are circumstances and points of note that have not been brought to the attention of the residents of Rockland County NY.

December 6, 2019 is the first time that the route trajectory details, the Change of Ownership, the Route Resolutions for the New Rockland Route have been seen, (website below)

<https://chpexpress.com/overview-of-public-documents/regulatory-documents/>

December 6, 2019: **Proposed Route Modifications for the Champlain Hudson Power Express**

Transmission Developers Inc. submitted a petition to the New York Public Service Commission to approve modifications to the route contained in the Champlain Hudson Power Express Article VII Permit. The refinements, which affect less than nine percent of the permitted route are the result of ongoing project engineering, environmental improvements, and discussions with community stakeholders. Taken together, the modifications provide a net environmental benefit and are consistent with the existing permit.

[Cover Letter](#)

[Route Modification Petition](#)

[Appendix A – Location of Facilities on USGS Mapping](#)

[Appendix B – Location of Facilities on NYSDOT Mapping](#)

[Appendix C – Location of Facilities on Aerial Photography](#)

[Appendix D – Resolutions from Communities](#)

[Appendices E and F – Real Estate and Newspaper Articles](#)

[Appendix G – Environmental Impacts](#)

[Appendix I – Analysis of Local Laws](#)

SOURCE: TDI Website (May 18, 2020)

How then can the public understand the repercussions of the “New Route” without knowing what the trajectory is as presented within these maps?

The Towns of, Stony Point, Haverstraw, Clarkstown and the villages of Haverstraw and West Haverstraw comprise “The Rockland Host Communities” have signed an MOU or as it has been renamed Appendix D- Route Resolutions, (posted on the NYS PSC web site on December 6, 2019) with the Champlain Hudson Power Express Inc. (“CHPE”) for monetary compensation that requires the Host Communities to support whatever modifications CHEPI wants to make. These documents were signed respectfully on April 4, 2018 (Village of Haverstraw) April 5, 2018 (Town of Haverstraw) April 4, 2018 (Village of West Haverstraw), March 28, 2018 (Town of Clarkstown) and on July 25, 2018 (Town of Stony Point). The filing on the New York State Public Service Commission is incomplete as it states clearly that there is a “Haverstraw Bay Community Benefits Fund” Package attached to these documents, (Appendix D- Route

Resolutions) yet it is not filed, where is this document, more so whose name is it in and how does this filing affect the unknown monies offered to the Haverstraw Bay Community Benefits Package? Do the deadlines within these documents affect their overall legality?

Attached is an (undated) copy of a letter from Stony Point Supervisor, Jim Monaghan to the members of the NYS Public Service Commission expressing town support of the amended route.

- a. I object to the supervisor’s assertion in the letter that TDI has “*thoroughly briefed public officials and members of the public on this modification...*” and object to his “*complete support for the proposed CHPE route modification within Rockland County*” without requiring that TDI provide the route maps at the time the meetings were held.
- b. In fact we believe that the letters submitted in support of the New North Rockland Route by the supervisors of the Town of Stony Point, the Village of Haverstraw and the Village of West Haverstraw were all form letters that TDI expected the municipalities to sign as a condition of having agreed to receive monies as promised in the Memorandum of Understanding (MOU).

Please address the repercussions to the Host Communities, with “The Applicants’ April 6, 2020 application states the Applicants “request that PP-362 be amended to name CHPE, LLC as the permittee, or in the alternative, rescinded and reissued to CHPE, LLC, to reflect the recent internal corporate restructuring that resulted in the creation of CHPE, LLC for business-related purposes.” And the relationship as delineated within Appendix D Route Resolutions.

Please identify the entity that has made the application and will in fact be the “Legal Entity” of record. The presentations made to the communities were done under the name TDI-Transmission Developers Inc., and the Champlain Hudson Power Express Inc. (their letterhead on the MOU signed by the Town of Stony Point), what entity is actually going to build within our communities and are any of the legal documents under different names applicable or legal?

The Champlain Hudson Power Express / TDI-Transmission Developers Inc. have indicated its interest in increasing the capacity of the line to 1250 MW which is not in compliance with the Appendix D Route Resolutions, “MOU’s” as submitted to the NYS PSC on December 6, 2019 – titled, “Resolutions from Communities.” nor is that in compliance with the existing PP-362.

Websites accessed on May 18, 2020

Transmission Developers Inc. <http://www.transmissiondevelopers.com/>

Champlain Hudson Power Express <https://chpexpress.com/project-overview/>

**The NEW ROUTE through Rockland County requires a public hearing:
Has TDI addressed the NYS Department of Transportation (DOT) letter of May 22, 2018 concerning the new, redirected route of CHPE onto NYS Route 9W, through the center of the business district in Stony Point?**

- a. Due to the fact that this “field change” is actually a completely new change of location with significant potential impacts, an Environmental Impact Study and public hearing needs to be conducted for the NEW NORTH ROCKLAND ROUTE now being proposed through Route 9W – the main North Rockland COMMERCIAL Corridor for the Town of Stony Point and Village of West Haverstraw, NY.
- b. Town of Stony Point, Village of West Haverstraw and the Village of Haverstraw residents and businesses, many of whom had attended the public hearings and were familiar with the original Hudson River Route along the CSX Railroad, now want to better understand the details of the NEW ROUTE and its potential impacts along the Route 9W Business District.
- c. The DOE **MUST ADDRESS, how the Right of Way for CHPEI will be managed** within the “New North Rockland” Route as it pertains to existing infrastructure. What happens when repairs need to be made, who has legal jurisdiction over the right of way especially in an emergency situation?
- d. Will CHPE be installed over existing utilities such as – cable, telephone, electric and or natural gas lines, sewer and water lines?
- e. The expected construction will be a significant disruption to our local businesses on the Route 9W corridor to many of our local business still reeling from the economic impact of the shutdown during COVID-19.

SPACE has long-advocated that CHPEI has to provide funds for an independent engineering firm, hired by the Town of Stony Point, to review the site plan/maps and ensure that the town’s best interests and potential for future use of the 9W Business Corridor are being developed in an environmentally sustainable way that protects the future town use and capability of the 9W Business Corridor to support smart growth and allow for utility access that supports and does not interrupt future potential economic development.

Riverkeeper has withdrawn it’s support for the TDI CHPE Project

In a PRESS RELEASE dated November 18, 2019, Riverkeeper, Inc. withdrew its initial support for the permitting of the Champlain Hudson Power Express, citing the changing energy landscape in New York State that includes the advancement of renewable energy due soon to come online and reductions in overall energy demand today that has drastically changed since April 2013 when Riverkeeper had originally supported the project after receiving assurances that it would not lead to the construction of new dams in Canada.

However, it now seems evident that CHPEI would likely increase the risk of new dam construction, which would lead to greater river and habitat destruction as well as additional negative impacts to the health, quality of life and cultural identity of Canada’s indigenous communities.

SPACE agrees with Riverkeeper that this development represents a significant change that questions the entire premise of CHPE actually being a source of renewable “green” energy.

Riverkeeper's PRESS RELEASE states:

“Riverkeeper has consistently stated that we would only support the CHPE project if it did not result in additional dam construction in Canada. In the six and one half years since our original decision not to oppose the permitting of CHPE, new risks have arisen that, if TDI does build this project and bring 1,000 MW of Canadian Hydropower to New York, it would increase the likelihood that new Canadian dams would be constructed. This construction would cause significant adverse impacts to the flow, function and ecology of the rivers and northern boreal forests involved, which lie in an area where the amount of power produced per acre of flooded land is among the lowest in the world.”

The entire Riverkeeper statement can be read at this link: [https://www.riverkeeper.org/news-events/news/energy/riverkeeper-statement-regarding-the- Champlain-hudson-power-express/](https://www.riverkeeper.org/news-events/news/energy/riverkeeper-statement-regarding-the-Champlain-hudson-power-express/)

Thank you for your interest and consideration of our comments.

Susan Filgueras

Board Member, SPACE

Stony Point Action Committee for the Environment, Inc. 30

Years of Environmental Advocacy & Education in 2020

stonypointer@optonline.net

845-429-2020

Facebook: [@SPACEStonyPoint](#)

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Mayor Village of Haverstraw, Michael Kohut michael.kohut@vohny.com

Mayor Village of West Haverstraw, Robert R. D'Amelio
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SPACE Board of Directors stonypointer@optonline.net

Media

May 23, 2020, Attachments:

- 1- May 22, 2018- NYS Dept of Transportation Letter, RE: SEQR 18-053 Route 9W Champlain Hudson Pipeline Permit Rockland County
- 2- May 13, 2020 -Town of Stony Point Letter of Support 3- May 13, 2020 Village of Haverstraw Letter of Support
- 4- May 13, 2020 Village of West Haverstraw Letter of Support
- 5- CHPE- Appendix D Route

November 17, 2021

TO: White House Environmental Justice Advisory Council

FROM: Leatra Harper, Managing Director (#46)

SUBJ: Testimony of 11/17 (truncated to 3 minutes for verbal testimony)

I am Lea Harper, Managing Director of FreshWater Accountability Project in Ohio. I would like to paint a picture of the difference between how Appalachia Ohio has suffered from environmental injustices throughout generations, now exacerbated by the fracking industry. As an example, in February 2018, XTO, a subsidiary of Exxon, operated a frack well that exploded in Appalachia Ohio. Volunteer firefighters quickly responded and evacuated the families in the region and local law enforcement immediately closed off access from the roads. A no-fly zone was established. The pad spewed methane and other toxins from deep underground into the surrounding area. It took 20 days, but the spewing methane was finally stopped. Our colleagues from Earthworks were in the area with the FLIR camera. I asked if they could make a detour to Powhatan Point to see how much gas was actually being released. That night, we met, and the camera operator was obviously shaken. He said he filmed the Aliso Canyon methane release, and this one was worse (<https://www.youtube.com/watch?v=aPHoLrGGI-M>). I thought – how could that be? What happened at Powhatan Point in Ohio was called a leak – not the catastrophe that it was. There was little admission of the seriousness of the situation at the time, even though 100 people were evacuated for weeks. It took satellite data to find out a year later that the methane “leak” was one of the largest ever. When Aliso Canyon was spewing, we heard about it every day on the national news. Public outrage and political attention were focused on that catastrophe. In SE Ohio it appeared to be business as usual, even though the methane released was estimated to be twice that of Aliso Canyon at 80 tons an hour for nearly 20 days. The people who were affected had symptoms of toxic exposures that were downplayed. The company was fined \$850,000 in a settlement agreement. XTO donated \$25K to the local emergency management agency. What a difference between an affluent community in California and rural Appalachia. Highlighted by the fact that we learned recently that the claims for Aliso were settled for up to \$1.8 billion, over 2000 times what XTO was fined.


In January 2019, there was a pipeline explosion in Noble County, Ohio, causing fires at three nearby homes. It was amazing no one was killed. Columbia Gas was fined only \$250,000. 5 years before that, the Statoil Eisenbarth pad had an explosion (<https://youtu.be/CwVL0L64Pcw>). Immediately, there was a massive fish kill of an

estimated 70,000 fish. Hardly anyone knew about that one. Once again, it was downplayed, and regulators fined the company \$225,000. We wonder how such a small fine like this could cover the cleanup of toxic, radioactive frack waste with proprietary chemicals that was released all the way to the Ohio River? These are the larger examples of the lack of accountability for harms by the fracking industry in Ohio, and there are many more smaller examples, with intentional, illegal dumping of frack waste hidden behind hills and off the back roads. This all adds up to the fact that there's money to be made with little accountability or cost for harms. The fines could be just the cost of doing business in a dirty, highly unregulated industry of fracking, especially in Ohio, the frack waste capital of the world. The Ohio Department of Natural Resources is supposed to regulate fracking, but they do not have the will or the legislation to properly protect people who are exposed to fracking and frack waste pollution, which is now migrating underground and communicating with unknown, abandoned oil and gas wells, sometimes spewing into surface water and soil. It has been 8 years, and yet, the ODNR has not instituted proper protections for fracking and frack waste, which was magically made non-hazardous through the stroke of a pen in DC. The Halliburton Loophole as it is called was obviously a requirement to make the industry profitable, which it still is not in many cases.

Fracking has really accentuated the Environmental Justice issues in Ohio. The only reason the industry could operate as it does is through the promise of jobs, People are being polluted, threatened and exploited with money paid in fines in order to continue business as usual. Many people who live in the Ohio Valley are afraid to speak out because of the desperate need for jobs. Anyone who questions the jobs promise is portrayed as an outsider even though they live there – they cannot match their efforts for justice against the industry's money and greed.

People want to believe that their representatives and regulators have this handled because they have enough to do to take care of themselves while making a living on sparse wages without benefits. Who has the ability to organize and protest when sick and impoverished? Even though Ohio is ten years into fracking development, the promised jobs and prosperity have not materialized. Even so, local officials want money so badly for schools and infrastructure repairs that they will abide the industry's harms and bullying and promote fracking and even a huge, toxic petrochemical complex. JobsOhio used public funds to entice the PTT Global cracker plant with \$70 million that could have been spent to build the school that the cracker plant promised. The frackers find a need – which is easy to do – and they throw a few thousand here and there to schools, ballparks, volunteer fire stations and community colleges to ensure that no one dare to criticize them. The people in SE Ohio themselves may not like it, but they say there is nothing anyone can do, and history has proven them right. I have tried for ten years to organize, educate and advocate for better jobs for the region, which are available to other regions, but what company would want their health care costs to go up because they have located in a region that is known for toxic air and water contamination? DuPont still operates with PFAS chemicals in the Ohio River, contaminating drinking water and shutting down water departments. The increasing costs to maintain drinkable water from the Ohio river for the 5 million people who depend on it are passed along to the ratepayers. The region becomes increasingly poor as boom industries become a bust, and the LLC's leave with their profits and dissolve when the costs

of capping wells, health harms and clean up become too much. Once again, the taxpayer must foot the bill, as we are doing now, with the cost of sealing abandoned oil wells and remediating from acid mine drainage into perpetuity. It is reprehensible that the politicians that are elected and re-elected, do not advocate for the betterment of the



Appalachian region because all they seem to care about is the revenue from jobs – even toxic jobs that will make the workers sick. We need healthy, desirable jobs and training for our young people and displaced coal workers in growth industries. We need advocates within the Government who will provide funding and grant opportunities to improve our deteriorating infrastructure and build new industries perfectly suited for Appalachia like tourism, agriculture, renewable energy programs so the region is not plundered by polluting and exploitive industries like fracking and petrochemicals. Bonds and severance taxes must be increased so Ohio taxpayers do not have to foot the bill for the damages the industry leaves,

Because of the opportunity presented by the American Geophysical Union's Thriving Earth Exchange Program and a grant we were given, we began our own air monitoring program. We have found toxic levels of airborne pollutants and even radioactivity tied to fracking, its infrastructure like compressor stations, and frack waste near homes and schools. We complain to the agencies, but no one comes with their own equipment to verify the results. The apathy that comes with coping with a loss of hope is palpable in this region of Ohio. Monroe County where the Powhatan blowout took place has a poverty rate of twice the national average. Deaths of despair from the opioid epidemic are an indicator of the loss of hope for a better future in the region. "The Appalachian Region continues to experience higher rates of opioid misuse and overdose deaths than other parts of the country. While the impact of the burgeoning epidemic is being felt nationwide, states and counties within the Appalachian Region are particularly hard hit, with opioid overdose rates more than double national averages" (<https://healthinappalachia.org/issue-briefs/opioid-misuse/>).

People need jobs that will pay a living wage that will not make them and their families sick. It is hoped that the infrastructure package will make a difference in people's lives so that they will see that they are not used, abandoned and forgotten by the profiteers who were enriched by their labor and the resource curse of the minerals and water that should make the Ohio River Valley the most prosperous region in the state rather than the poorest. Once again, the future will show that the region would have been better off in the long run if a polluting industry like fracking would never have come, because there is not enough money in bonds and assurances to cap the frack wells. Injection wells proliferate and some have begun to leak, and who is going to cap them when they are done? The industry's playbook to externalize their costs upon the community and taxpayers is playing out before our eyes, and our elected representatives are turning a blind eye to it. Policies need to be put in place so that people are not enticed by desperately needed jobs to the point that they themselves become a sacrificed resource to the benefit of outside interests who would never live next to fracking or its toxic infrastructure themselves. We need campaign finance reform so that the industry does not hold sway over our elected officials who are afraid to cross them by holding polluters accountable for the harms. We can't even get a fair severance tax proposed or passed in Ohio with the state ranking among the lowest in oil and gas producing states. Instead of making the industry pay a fair share, Ohio continues to

try to subsidize and support fracking by providing cheap disposal of toxic frack waste, even spreading it on our roads as a cheap way to handle their biggest problem – the massive amounts of toxic, radioactive waste that has been generated that is falsely labeled as nonhazardous through another big example of legislative compromise if not corruption. Appalachia deserves better, but the region is not given a chance.

Another example of how the Ohio River Valley is not given the opportunities other regions are given in Ohio is the amount of money set aside for the Great Lakes in the Bipartisan Infrastructure Deal. We do not see that the Ohio River is given as much consideration by state and federal policymakers. While the Ohio River continues to be polluted without adequate protections, the needed funding for protections and remediation is not forthcoming. Cancer death rates are higher than the national average along the Ohio river, and that trend will likely continue as polluting industries locate in the valley for its rich resources and water.

How many more people will become sick just because they cannot leave or don't want to give up family and friends or they have to take the only jobs offered, even if the jobs expose them to toxic chemicals? We have not given up on preserving and protecting the region's beautiful hills, streams, rivers and long-term wealth of clean air and water against the short-term interests of fossil fuel greed, but we are ignored and threatened, stressed and tired, underfunded and marginalized as anti-jobs. In fact, when presented with the downsides of fracking and petrochemical and the opportunity for a better economy, a local official told our colleagues that he wouldn't join us because he didn't want to get people's hopes up for an alternative vision. That shows how much we need programs and policies that can pivot the region away from dirty, extractive industries. Justice can come to Appalachia, but it is not up to the people who live there who have had to tolerate bad policies right along. It is up to the powers-that-be to do the right thing. Then the hardworking people of the region may have a chance to improve their lot without having to leave their roots for a better life.

The council asked for suggested solutions. A big start would be to pull the plug on the PTT Global cracker plant project in Belmont County, Ohio and replace it with training and jobs to build affordable housing, replace crumbling infrastructure, build renewable energy projects, provide programs for energy efficiency improvements, remediate contaminated soil and water, implement sustainable agriculture programs, build out broad band, invest in tourism and recreation and new schools and provide seed money for small businesses – the list can go on and on. Let's ask residents in the region what they want for their future economy and deliver it to them rather than forcing upon them what outside others want for profits that will leave the region. Appalachians will get their hopes up when they see it is possible to achieve the future they want.

Timeline – Possible Fracking/ injection well Spill Impacting Choices Interlinking Inc/ c/o Cozetta LaMore- Kilgore, Tx

Sometime prior to observations of the oily substance described below, large quantities of water spilled onto property and on adjacent roadway from an unknown source.

5- 2015 Report filed with Tx Railroad Commission re-oily substance with sheen observed on property

5-2015 Report of oil reported to Rusk co sheriff.
The property was inspected by the dept and an apparent oil spill confirmed

5-2015
Field workers traced substance coming onto property apparently originating from a recessed area of adjacent property west; Gulf South operates a gas line on this property
A report was made to Gulf South Pipeline. I spoke to A geo-engineer (rodney lee? environment geologist gulf south 713-479-8114.)
He investigated and determined that the spill was coming from Breitburn to the West.
An Ariel photo from Google maps confirmed spills.

5-28-2015 Complaint filed of oily substance on surface water with TCEQ hotline.

6-4-2015 Investigation conducted by TxComm on Environmental Quality(TCEQ) (CCEDS Investigation 1259545).

).
CCEDS Incident 215984 is regarding the receipt of telephone notification of a “complaint” on May 28, 2015. CCEDS Incident 215984 refers to the Investigation that I conducted on June 4, 2015 (CCEDS Investigation 1259545).” Investigator Reidel states:

“As I mentioned on the telephone, Investigation 1259545 was inconclusive as I observed a sheen on water flowing through the property, but I was unable to identify the sheen or the source.” Additional info will be helpful.

In the phone conversation Mr. Reidel did indicate the possibility that the black sheen was a toxic substance ie Hydro-carbons caused by oil-Fracking products.

8-7-2015 Report/ complaint filed with Eric Merit of national response - case no 112-506. Also discussed earlier observation of large volumes of water running off of property and emerging on surfaces of property and on the public road from an unknown source

8-7-15 Drainage observed coming from west/ uphill onto property
National response report made to EPA -1125036 report no
National response referred me to: epa 800-887-6063 / 214-665-2760 (12-26-17)

*** 8-12-2015 Formal complaint filed with G. Powell of Tx Railroad Commission
Inversion/ injection well identified west of property with spills- complaint # 2806
(Breitburn operation) : [\(903\) 984-3026](tel:9039843026)

6-7 -2016 oily substance again observed
Breitburn Energy inc local office is notified of spillage from their property.

6—2016 Shortly after the report, the substance subsides

June 8th, 2016 oily substance again reported to TCEQ and railroad commission. This time,
oil was less dense but clearly observable in tainted water. Pics available.

6-13-2016 Notice of bankruptcy chap 11 received from US bankruptcy court informing of
Breitburn Energy's intention to file- case no 16-11390 (SMB).. . Notice is dated 61-
2016

11-16- (approx) Claim filed against Breitburn with bankruptcy court. Choices
Interlinking has requested mediation for resolution/ no response yet received.

12-05 Attorney from breitburn says they need docs from gov officials linking them to
spill before they can consider settlement. Daniel Gwen

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212 310 8007](tel:+12123108007) Fax 12-22-
2017 communication
follow up via email with
USDA-conservation-
national about problems
with contaminated soil and
water from
inversion/injection well

and request guidance for
their participation in a EPA
sponsored problem solving
(
environmental justice collaborative problem solving) They
had referred me to the local office in Rusk co.

12-21

Rusk co official says it is not in their domain to help. They referred me to the Rusk
County water board.

12-24-17 email sent to rusk county
water board

500 N. High St, Henderson, TX 75653

Mailing address: P.O. Box 97, Henderson, TX 75652

Office (903) 657-1900

Fax (903) 657-1922

General Office email, rcgcd@suddenlinkmail.com

12-24-2017

Large sink hole observed on property 227 cr 168

12-26-2017 called national response center to update report: they referred me to
Tx General Land...512-463-5001 . They said I should referred to Case # (1125036
report of 2015)

2018- 10-2021

Problem solving team with a rep from Tx Railroad commission, EPA- tech support.
and CDC convene with no resolution. Although team members appear to
acknowledge that it is a regulatory concern, no one is regulating this issue; hence
responsible parties are unwilling to move forward with corrective actions.

Subject: WHEJAC November 2021 Meeting Public Comments

EJ Public Comments for White House Environmental Justice Advisory Council (WHEJAC)

I am a neighbor and concerned citizen in the Elmhurst neighborhood of the city of
Sacramento,

California. I am fortunate to live in an older neighborhood (for California) established in
the early 1900s; therefore we have a much-treasured tree canopy that is threatened by
climate change as well as policies on urban densification coming from the White House,
through Congress, through our state Legislature and Governor, and our city council, that
threaten this canopy and public health.

The situation is far more dire in neighborhoods that deserve environmental and
economic justice (EJ) that are low income, and lack the tree canopy of older, more

established neighborhoods.

The city has an urban forestry program, however, 80 percent of our city's tree canopy is on private property, much of it in our back and front yards. Government programs and policies are aggressively treating our back and front yards as places to add density, especially in neighborhoods that are currently zoned for single family housing, with duplexes allowed on corner lots. In reality, there are legacy duplexes, triplexes and fourplexes throughout these currently zoned single-family neighborhoods. In addition, the state of California has mandated that two accessory dwelling units be allowed to be built ministerially, by right, on any single family lot in addition to a single family home, and one of these units can be up to 1,200 square feet. This is larger than some of the existing old-neighborhood homes. Effective January 1, 2022, under state law (Senate Bill 9, Ch. 162, Stats. 2021) a duplex structure will be allowed ministerially, by right, on any currently zoned single-family lot, with the option of splitting the lot and building two duplexes, for a total of four housing units with a minimum size of 800 square feet per unit. It is within a city's discretion to allow accessory dwelling units in addition to duplexes.

This densification/upzoning will lead to the removal of trees, and where trees are removed, the creation of urban heat islands, creating a new problem in higher resource neighborhoods like mine, and exacerbating the problems in lower resource neighborhoods with existing heat islands that are seeking environmental justice. One-size-fits-all solutions to create density nationwide do not take into account cities in our state and country that are dealing with the effects of heat on air quality and health. And climate change is making our city hotter. In addition, there have been no air quality monitors of the type where findings are reported to the federal government in some of our EJ neighborhoods, which have already been shown to have a higher rate of respiratory diseases. <https://www.sacbee.com/news/local/article252768513.html> Heat is the number 1 weather-related cause of death in the US. (<https://www.weather.gov/hazstat/>)

California state and local densification/upzoning proposals do not take "clustering" into account. Where density is clustered and concentrated in neighborhoods, the addition of hardscape, concrete, and loss of trees, and space to plant trees, will create urban heat islands where:

- The loss of shade and cooling will result in increased energy usage;
- The loss of trees' ability to produce oxygen and trap air pollution will result in impaired air quality;
- The loss of trees' ability to sequester carbon will result in increased greenhouse gasses, creating more heat; and

WHEJAC Comments

Francesca Reitano 11/2021

Page number 2

- The loss of the ability of trees and permeable spaces to filter water and allow it to drain into our aquifers will result in impaired water quality.

There are ongoing programs in the city and region to add to the tree canopy in EJ neighborhoods, and Congresswoman Matsui has introduced the TREES Act, which will hopefully lead to passage and more relief for EJ residential neighborhoods (<https://matsui.house.gov/news/documentsingle.aspx?DocumentID=2116>)

<https://www.sacbee.com/news/equity-lab/article252661333.html>

However, adding density in residential neighborhoods where there is already a lack of trees, and cutting down established, mature trees in all neighborhoods to build that density, are working at cross-purposes. Programs to plant trees are all well and good, but I don't see any discussion of providing ongoing maintenance of privately-owned trees in EJ neighborhoods. In addition to having to pay for and provide metered water for their trees, low-income families cannot afford arborist services necessary to keep trees healthy. Exacerbating this issue, many properties are rentals, some owned by absentee landlords or private investment companies.

Many of the state and local densification programs provide no affordable housing, and little opportunity for home ownership. Since the federal government and state government are providing very little funding, if any, it is left to private developers to do most of the building, and they will do it in the most profitable way, in the most profitable areas. This includes market-rate housing in well-established, high-resource areas that are being opened up for density/ upzoning, as well as market-rate housing at the edge of low resource areas where land is cheaper, leading to gentrification. Adding density does not lower the cost of housing - in fact, it makes land more valuable. Trickle-down Reaganomics does not work for our economy, nor does it work for our housing issues.

Thank you for your consideration of my comments.

Francesca Reitano
freitano@gmail.com
Sacramento, CA 95817



November 16, 2021

Peggy Shepard, Chair
Richard Moore, Chair
White House Environmental Justice Advisory Committee

Re: U.S. Methane Emissions Reduction Action Plan

Dear Ms. Shepard, Mr. Moore, and Members of the WHEJAC:

Thank you for your service and dedication to the environmental justice movement. The IPCC has recently declared a climate code red and called for near-term, strong, rapid, and sustained methane reductions in order to stabilize our climate.¹ The Administration has responded to that methane call to action by releasing the U.S. Methane Emissions Reduction Action Plan.² But the Administration is failing to center environmental justice in its climate policy when rural communities endure racially

disparate impacts from industrial animal agriculture – factory farms – and the Plan exacerbates that injustice. The Center for Food Safety, Friends of the Earth, Land Stewardship Project, Public Justice, and the Socially Responsible Agriculture Project respectfully ask the WHEJAC to recommend that the Administration uses its existing legal authority to require methane reductions from industrial dairy and hog operations in a manner that advances environmental justice.

The Biden Administration has committed to environmental justice in climate policy. On January 27, 2021, President Biden signed the Executive Order on Tackling the Climate Crisis at Home and Abroad, and section 219 of that Order commits the Administration to placing environmental justice at the center of climate policy. The President stated, “[i]t is therefore the policy of my Administration to secure environmental justice and spur economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution[.]”

But the U.S. Methane Emissions Reduction Action Plan only contemplates voluntary, incentive-driven methane reductions in the agricultural sector.³ This includes factory farm gas, which Big Ag and Big Oil & Gas market as “renewable biogas” to greenwash their operations. The Administration’s bold claim that factory farm gas

¹ Intergovernmental Panel on Climate Change. Climate Change 2021: the Physical Science Basis, August 7, 2021, available at <https://www.ipcc.ch/report/sixth-assessment-report-working-group-i/>.

² U.S. Methane Emissions Reduction Action Plan, available at <https://www.whitehouse.gov/wpcontent/uploads/2021/11/US-Methane-Emissions-Reduction-Action-Plan-1.pdf>.

³ *Id.* at 11.

publicjustice.net

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“advances environmental justice”⁴ has no foundation in reality. Factory farm gas is a dirty and false solution, which hurts Black, Latino, and Indigenous rural communities, uses their backyards as dumping grounds and pollutes the water, air, and land, while further safeguarding the fossil fuel industry and industrial ag corporations’ agendas.⁵ As long as the factory farm gas scheme exists, so will the corporate-driven motive to continue operating industrial agriculture facilities, increase manure production, and burn gas for energy. Any standard that allows industrial hog and dairy operations to continue using liquefied manure management systems will have adverse and long-lasting environmental, economic, and public health impacts.

Nevertheless, the U.S. Department of Agriculture and its Commodity Credit Corporation have proposed combining factory farm gas with carbon banking and pollution trading to implement the Methane Plan. Under the proposed Climate Smart

Agriculture and Forestry Program, the agency seeks to structure a voluntary carbon offsets market for agricultural sources, including factory farm gas.⁶ Instead of doubling down on factory farm gas and pollution trading, the Administration should use its current legal authority under the Clean Air Act to regulate industrial dairy and hog operations.

Section 111 of the Act gives EPA authority to require direct emissions reductions from such massive sources of methane. A coalition including environmental justice organizations have petitioned the Environmental Protection Agency to use that authority to list such industrial dairy and hog operations under section 111 of the Clean Air Act.⁷ The petition documents the significant impact that industrial hog and dairy operations have on climate change – 13 percent of total U.S. methane emissions – and their negative impact on public health and the environment. The petition also calls on the EPA to follow the science, commit to real climate change solutions backed by actual scientific data, and reject the false solution of factory farm gas.

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⁴ U.S. Methane Emissions Reduction Action Plan at 11.

⁵ *See, e.g.*, Complaint under Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, regarding the North Carolina Department of Environmental Quality’s Issuance of Permit Nos. AWI310035, AWI301139, AWI230466, and AWS820005, available at <https://www.southernenvironment.org/wpcontent/uploads/2021/09/2021-09-27-Title-VI-Complaint-Index-DEQ-Biogas-Permits.pdf>; Petition for Rulemaking to Exclude All Fuels Derived from Biomethane from Dairy and Swine Manure from the Low Carbon Fuel Standard Program, filed October 27, available at <https://food.publicjustice.net/wpcontent/uploads/sites/3/2021/10/Factory-Farm-Gas-Petition-FINAL.pdf>.

⁶ 86 Fed. Reg. 54149 (Sept. 30, 2021), available at <https://www.regulations.gov/document/USDA-20210010-0001>.

⁷ Petition to List Industrial Dairy and Hog Operations as Source Categories under Section 111(b)(1)(A) of the Clean Air Act, filed April 6, 2021, available at <https://food.publicjustice.net/wpcontent/uploads/sites/3/2021/04/2021.04.06-Industrial-Dairy-and-Hog-CAA-111-Petition-FINAL.pdf>.

We now request that the WHEJAC recommend that, in order to achieve environmental justice in rural communities, the EPA should list industrial dairy and hog operations pursuant to section 111 of the Clean Air Act. Thank you for your commitment to environmental justice and your service on the Committee. Please contact me with any questions or requests.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brent Newell".

Brent Newell
Senior Attorney

Rebecca Spector
Center for Food Safety

Adriane Busby
Friends of the Earth

Sherri Dugger
Socially Responsible Agriculture Project

Amanda Koehler
Land Stewardship Project

3



INTERNATIONAL UNION, UNITED AUTOMOBILE, AEROSPACE & AGRICULTURAL IMPLEMENT WORKERS OF AMERICA – UAW

RAY CURRY, *PRESIDENT*

FRANK STUGLIN, *SECRETARY-TREASURER*

VICE-PRESIDENTS: CHUCK BROWNING • TERRY DITTES • CINDY ESTRADA

July 27, 2021

Deanne Grant
Regulations Implementation Division
Office of Land and Emergency Management (5104A)
Environmental Protection Agency
1200 Pennsylvania Avenue NW

Comments on Federal Register Notice Number 2021-11280, “Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Notice of Virtual Public Listening Sessions,” Docket Number EPA-HQ-OLEM-2021-0312

Submitted by Ray Curry, President, International Union, UAW via Regulations.gov

Dear Ms. Grant:

The International Union, UAW representing one million active and retired members, many of whom work in facilities covered by the Risk Management Plan (RMP) standard and/or live in the vulnerability zone of such facilities, submits these comments to Docket ID Number EPA-HQ-OLEM-2021-0312.

In 2019, under the previous administration, EPA repealed most of the amendments to the Risk Management Plan Rule the agency had promulgated less than three years before. The purpose of the amendments had been “to improve chemical process safety [including worker safety], assist local emergency authorities in planning for and responding to accidents, and improve public awareness of chemical hazards at regulated sources¹.” Among other provisions, the amendments included requirements for Safer Technology and Alternatives Analysis (STAA) as well as worker training. The repeal of these amendments was based on flawed data and analysis, incorrect assumptions, and arbitrary and capricious reasoning. In repealing the amendments, EPA ignored or improperly addressed evidence that did not support repeal. In addition to the ignored or improperly addressed evidence, there is new evidence that demonstrates the urgent need for EPA to develop and adopt a stronger RMP rule. Much of this evidence is presented and discussed below.

An improved RMP rule is urgently needed to protect workers, communities, and businesses by finally preventing chemical releases

A new rule should include the following:

- To bolster the safety of workers, the rule should require worker and union participation in incident prevention, investigation, and response. It should require worker training in order to enhance safety and facilitate meaningful participation.
- It should prevent chemical disasters by ensuring hazard reduction, not merely improved response to preventable disasters. This should be done by requiring the identification and use of available inherently safer methods to eliminate or reduce catastrophic hazards.
- The rule should address disproportionate, cumulative impacts for communities with multiple RMP facilities.
- The rule should restore and implement essential requirements for safer chemicals, technologies and practices, worker training, third-party audits, root cause analysis, deregistration analysis, and emergency exercises.

Worker Participation

RMP reforms should include increased participation of workers and their representatives in RMP plan development and training in incident prevention, response, and investigation, as has been successful under the California refinery rule framework. Moreover, it is necessary for workers to be able to report hazards and “near-misses” anonymously with protection against retaliation. RMP facilities should be required to respond immediately to present and imminent threats, including those related to extreme weather and other natural disaster risks.

EPA should issue specific provisions in a new rule that enable workers and their unions to participate in prevention of chemical releases by:

- 1) Stating that “In consultation with employees and employee representatives, the facility owner and operator shall provide for meaningful employee participation when developing, implementing, maintaining, and evaluating all RMP activities, including hazard assessment, the prevention program, and emergency response activities and shall keep current a written plan that describes such opportunities.”
- 2) Requiring facility owners and operators to disseminate RMP information to employees and their representatives, including Process Hazard Analyses (PHAs), safer alternatives

assessments, incident investigation reports, third-party audits, emergency response plans, and other RMP information.

- 3) Requiring facility owners and operators to assess the impact of a worst-case release on their own employees and contractors **and** on those of nearby industrial facilities when conducting Process Hazard Analyses.
- 4) Issuing, as called for by the Chemical Safety and Hazard Investigation Board (CSB), a “stop work authority” provision so workers and their representatives may engage management to temporarily halt processing units and operations that pose a catastrophic risk.
- 5) The 1990 Clean Air Act amendments require that employers allow employees and their representatives the right to participate in Section 112(r) inspections under the same terms that they can participate in OSHA inspections. EPA guidance explains this right. The new RMP rule should also explain how employees and their representatives can participate during EPA inspections and audits.
- 6) RMP facilities should be required to report data to EPA that can be made accessible to workers, their representatives, and fence line communities to reduce harm when preparing for and responding to chemical in incidents. EPA should require RMP facilities to undertake, and facilitate the participation of first responders in, emergency response exercises (including field, tabletop, and community notification exercises) on clear, regular, and enforceable timetables (i.e., restore and strengthen all these elements of the 2017 Amendments). These rule elements and exercises should include information and procedures that are responsive to the particular risks of natural disasters a for a given facility.

Require hazard reduction to the greatest extent feasible through identification and use of available inherently safer methods to eliminate or reduce catastrophic hazards.

Any new RMP rule should require hazard reduction to the greatest extent feasible, especially for the most hazardous facilities, where known safer processes available, and in communities with multiple facilities or with environmental justice concerns. Too many facilities focus solely on incident response or administrative controls. Many blame workers for deadly events that, in fact, result from the failure to fund and implement prevention measures, or the failure to convert to available safer processes. In developing a badly needed new RMP rule, EPA should rely on best practice approaches to hazard reduction, especially successful state and local programs like the 2017 California Process Safety Management regulation for petroleum refineries, the Contra Costa County (CA) Industrial Safety Ordinance, and the New Jersey Inherently Safer Technology rule.

EPA should make the routine reporting and dissemination of solutions data an integral part of the RMP program and rule. Solutions data means the successful practices companies are using to reduce and remove RMP chemical hazards. EPA should incorporate solutions data into the RMP program in at least five basic ways. Solutions data should be:

- 1) Reported on RMP deregistration forms;

- 2) Summarized from any safer alternatives analyses in RMPs submitted to EPA;
- 3) Required from every RMP facility (not just oil, chemicals, and paper);
- 4) Included in public meetings after incidents;
- 5) Compiled into a public EPA hazard reduction clearinghouse.

Address Cumulative Hazards

Many communities host multiple (in some cases dozens) of RMP facilities with overlapping vulnerability zones, and in some cases in very close proximity to each other. These cumulative hazards and the potential for simultaneous or chain reaction incidents, especially during extreme weather events or natural disasters that affect all facilities simultaneously, are not currently addressed in the RMP program at all. As is well documented, these communities are disproportionately communities of color and low-income communities – the very overburdened and disproportionately impacted communities that the Biden Administration and EPA have committed to protect.

A new RMP rule must address these cumulative hazards through common sense measures, including:

- Requirements that facility worst-case scenario analyses, response plans, and hazard reduction plans must account for the presence of other RMP facilities in the vulnerability zone; and
- Requirements for certain facilities in such communities to implement certain prevention methods (i.e., new facilities; facilities with incidents in last 5 years; Program 3 facilities; facilities in communities with multiple sources; facilities using particularly hazardous chemicals or with available safer alternatives; etc.).

Compliance

Compliance mechanisms should be transparent and easily enforceable. They should include prompt deadlines as well as clear definitions of facility and EPA obligations. Compliance reporting to EPA should be made publicly accessible. Requirements should include appropriate testing and assessment for worst-case failure scenarios of critical components and systems, testing and assessment of mitigation measures, inspections and reports, and replacement of components like corrosion-vulnerable pipes and equipment. The EPA should prioritize health and cumulative impact assessment and target regulatory enforcement for RMP facilities in areas vulnerable to natural disaster risks and near communities with environmental justice concerns.

Program Expansion

EPA should expand the universe of hazardous chemicals that trigger RMP requirements, including (and especially) flammable, explosive, and other reactive chemicals. UAW members have been injured and killed in several combustible dust explosions in the primary metals sector, in

pharmaceutical manufacturing and in the metals recycling industry. EPA must expand the RMP rule to encompass combustible dust and the industry sectors where these hazards are generated. Moreover, the Agency should require additional protections for facilities and processes sited in areas vulnerable to climate and natural disaster risk, or in communities already overburdened with multiple RMP facilities and/or other chemical hazards and exposures.

New Data and Evidence

EPA has requested new data and evidence. Fortunately, there is new evidence from EPA’s own Risk Management Plan Database. One important question is whether the existing regulations are effective. Judah Prero of the American Chemistry Council asserts that “a lack of sufficient regulations is not the problem.” His assertion is based on the claim that “From 2007-2016, EPA data show that there were 1,368 RMP accidents reported by a total of 947 facilities. RMP accidents declined steadily during this time from 204 in 2007 to 99 in 2016, representing a 45.3% reduction.” There are several problems with this claim. One of them is that Prero’s assertion that there were 99 accidents in 2016 is **inaccurate**. According to EPA’s RMP database, as of May 2021, 123 impact accidents had been reported to EPA for the year 2016.

Prero’s assertion that there were 99 accidents in 2016 comes from data reported by EPA in the 2019 *Regulatory Impact Analysis* (RIA) for the RMP Reconsideration Rule²⁹⁶. According to EPA, the 2004-2013 data were extracted from the RMP database in early 2015 and the 2014-2016 data were extracted in March 2018. The table below compares the 2019 RIA data to data from two subsequent downloads of the RMP database, one from September 2019 and one from May 2021. It shows that data reported in the 2019 RIA underestimate the number impact accidents for all years subsequent to 2009. Hence any claims made about a decline in accidents that refer to years after 2009 rely on incomplete data if they depend on the 2019 RIA.

Comparison of Number of Impact Accidents Reported in EPA’s 2019 Regulatory Impact Analysis with the Number Identified from the September 2019 Database and the May 2021 Database					
Year	Number of Accidents Reported in EPA's 2019 Amendments RIA Dataset	Number of Accidents According to September 2019 Database	Difference between 2019 Database and RIA	Number of Accidents According to May 2021 Database	Difference between 2021 Database and RIA
2004	197	198	0.51%	198	0.51%

²⁹⁶ U.S. Environmental Protection Agency (2019, Nov. 18). *Regulatory Impact Analysis, Reconsideration of the 2017 Amendments to the Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7)* [Final Rule]. Washington, DC: USEPA.

2005	152	151	-0.66%	151	-0.66%
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Comparison of Number of Impact Accidents Reported in EPA's 2019 Regulatory Impact Analysis with the Number Identified from the September 2019 Database and the May 2021 Database					
Year	Number of Accidents Reported in EPA's 2019 Amendments RIA Dataset	Number of Accidents According to September 2019 Database	Difference between 2019 Database and RIA	Number of Accidents According to May 2021 Database	Difference between 2021 Database and RIA
2006	140	137	-2.14%	137	-2.14%
2007	204	203	-0.49%	203	-0.49%
2008	168	168	0.00%	168	0.00%
2009	149	149	0.00%	149	0.00%
2010	128	130	1.56%	130	1.56%
2011	138	147	6.52%	147	6.52%
2012	118	131	11.02%	131	11.02%
2013	123	150	21.95%	150	21.95%
2014	128	137	7.03%	137	7.03%
2015	113	138	22.12%	145	28.32%
2016	99	116	17.17%	123	24.24%
Year		Number of Accidents According to September 2019 Database		Number of Accidents According to May 2021 Database	Difference between 2019 and 2021 Database
2017	-	89	-	99	11.24%
2018	-	72	-	89	19.10%
2019	-	31	-	98	216.13%

It is not surprising that data extracted in early 2015 undercount accidents that occurred after 2009. According to EPA, “[O]riginally there was no requirement to update RMP accident information until the next RMP submission was due, which normally occurs every five years. Although EPA changed this requirement in 2004 to require owners and operators to update their

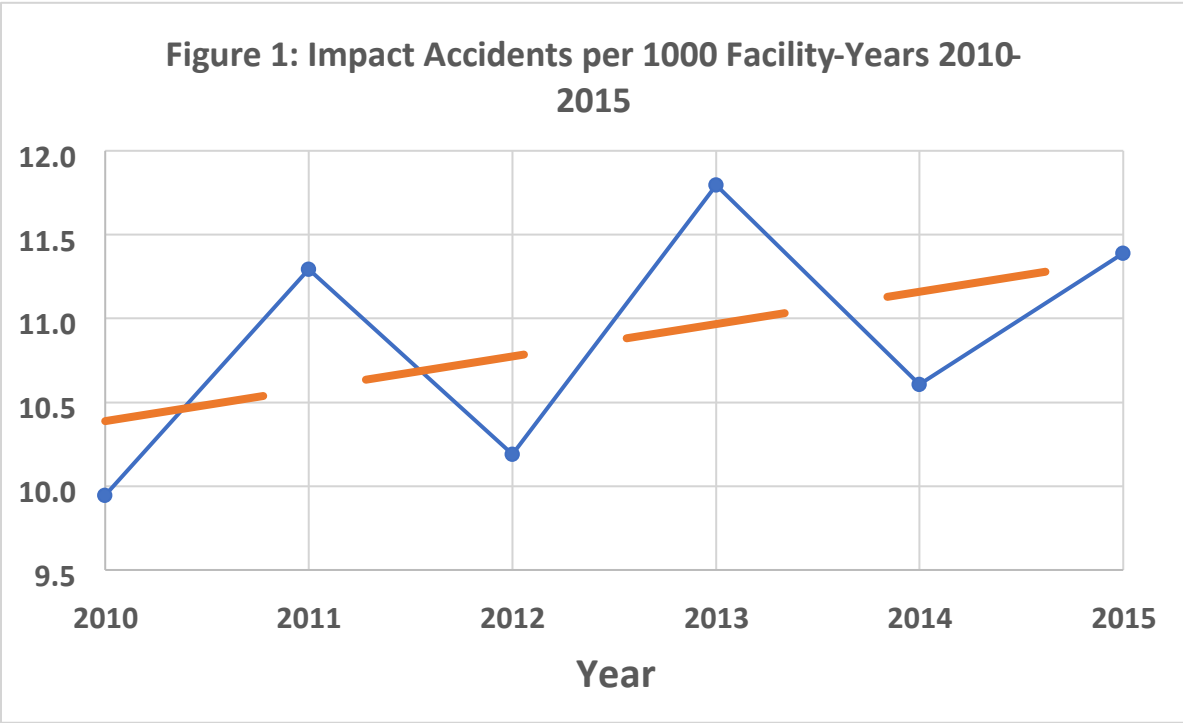
RMP accident history information within 6 months of any reportable accident, not all sources consistently comply with this requirement.”²⁹⁷ This means that we would not expect accident reporting for any given year to be complete until five years later. Indeed, the table above tells

us that the RIA data, extracted in early 2015, were complete for 2009 as evidenced by the fact that subsequent downloads of the database do not indicate additional accidents but were incomplete for 2010. This is likely due to the fact that at least six months’ worth of additional reporting for the year 2010 came in after data were extracted in “early” 2015. If reporting is done every five years, we would expect reporting to be complete for any given year only after a full five years have passed. For the same reason, as can be seen in the table, data extracted in March 2018 are incomplete for all years after 2012. Hence, an extraction done in March 2018 the covers only the years 2014-2016 does not contain any complete data. The 2014 data are uncaptured by more than 7%. The 2015 data are undercounted by over 28% and the 2016 data are undercounted by almost 25%. Similarly, the May 2021 database shows additional impact accidents for the years 2015-2019 compared to the September 2019 database for 2015 and later years, but not for years prior to that. This provides additional support for the fact that the latest year for which data from any given database extraction are complete is five years before the full year preceding the date of the extraction.

An additional problem with Prero’s assertion is that it is based on numbers of accidents and not on accident rates. The total number of accidents could decline simply because facilities close or move to other countries. This would not be evidence of the effectiveness of existing regulations. Rates measure the effectiveness of regulations by taking into account changes in the number of facilities. When the Kendall rank correlation coefficient²⁹⁸ is used to analyze accident rates, we find that there is no statistically significant change in rates for the period 2004-2015 (Correlation Coefficient: -.091, Sig. (2-tailed): .681). Moreover, for the years 2010-2015, there is a nonstatistically significant *increase* in impact accident rates as can be seen in Figure 1 below.

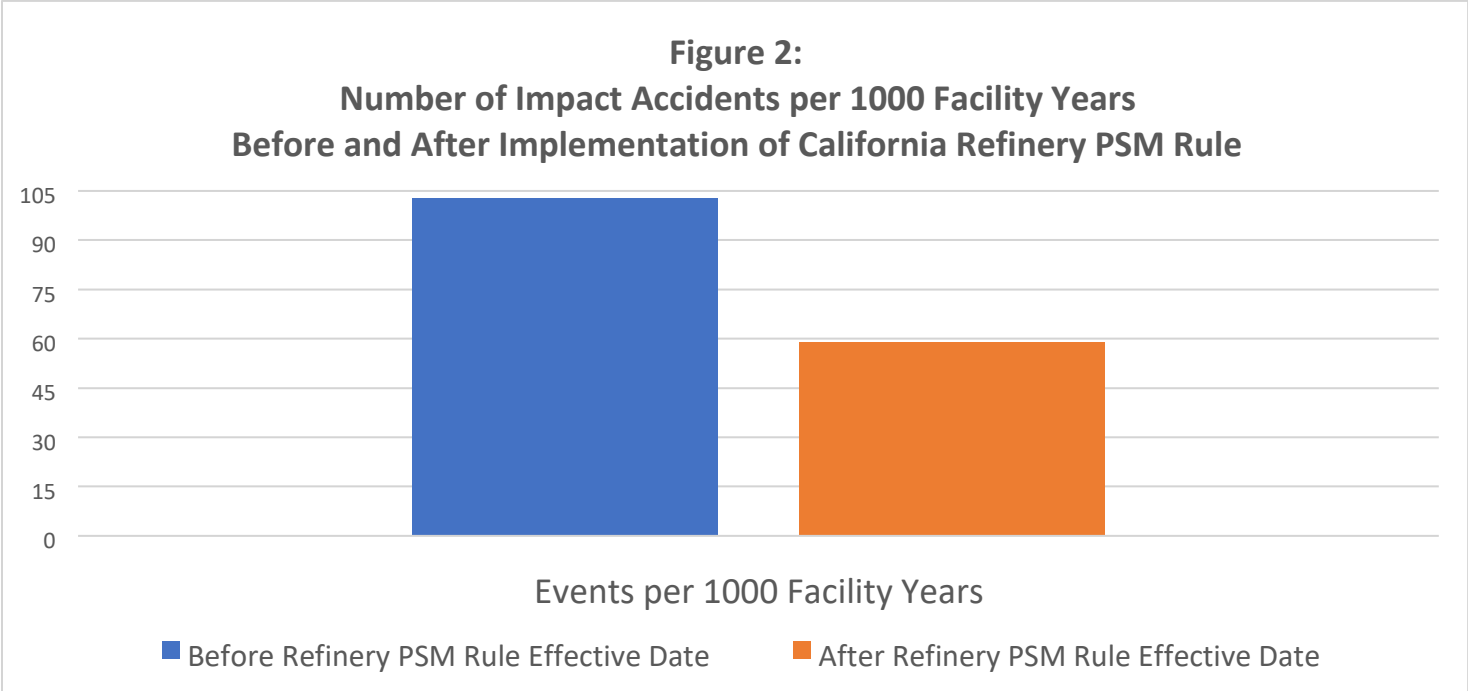
²⁹⁷ *Ibid.* p.38 (footnote 30)

²⁹⁸ Kendall, M. G. (1938). A new measure of rank correlation. *Biometrika*, 30(1/2), 81-93.

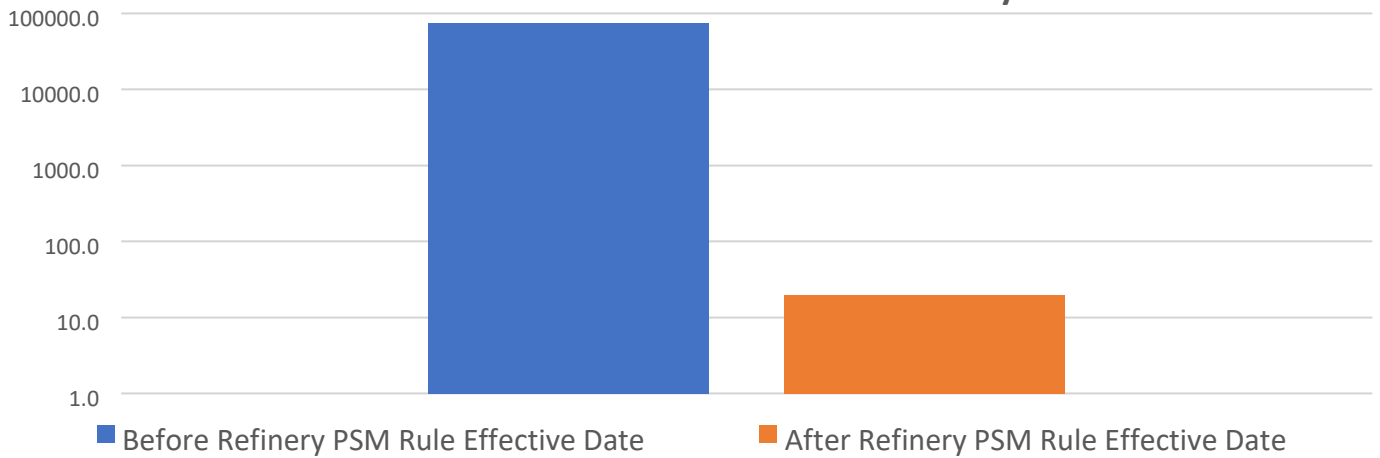


The California Refinery Rule Provides Evidence in Support of Hazard Reduction Requirements

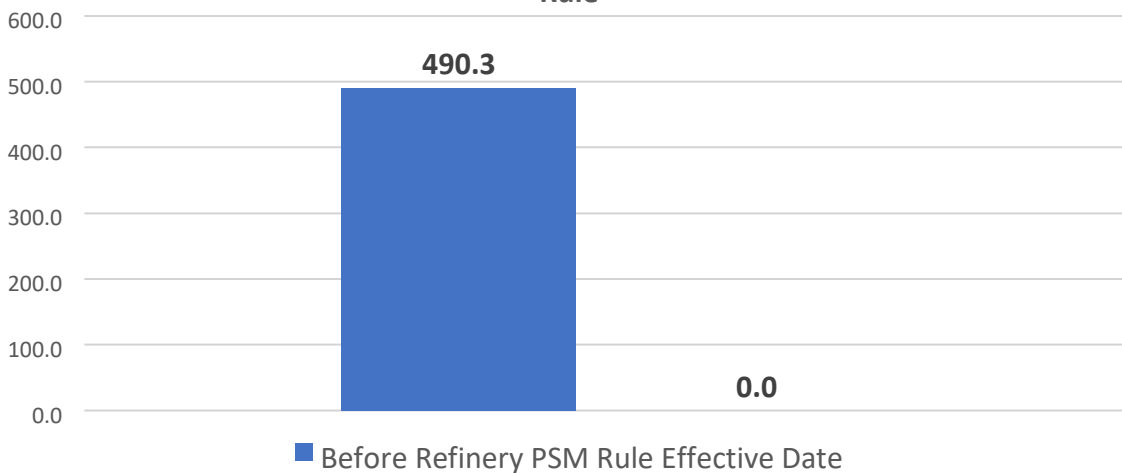
The California rule for Process Safety Management for Petroleum Refineries includes many of the elements proposed above for inclusion in the Risk Management Plan Rule. Its effective date was October 1, 2017. Since that time reductions have been achieved in accident rates (Figure 2), injury and illness rates (Figure 3) and rates of evacuation/sheltering in place (Figure 4). This demonstrates the effectiveness of a rule that goes well beyond the existing RMP rule and incorporates many of the provisions discussed above.



**Figure 3:
Number of Injuries and Illnesses per 1000 Facility Years
Before and After Effective Date of California Refinery PSM Rule**



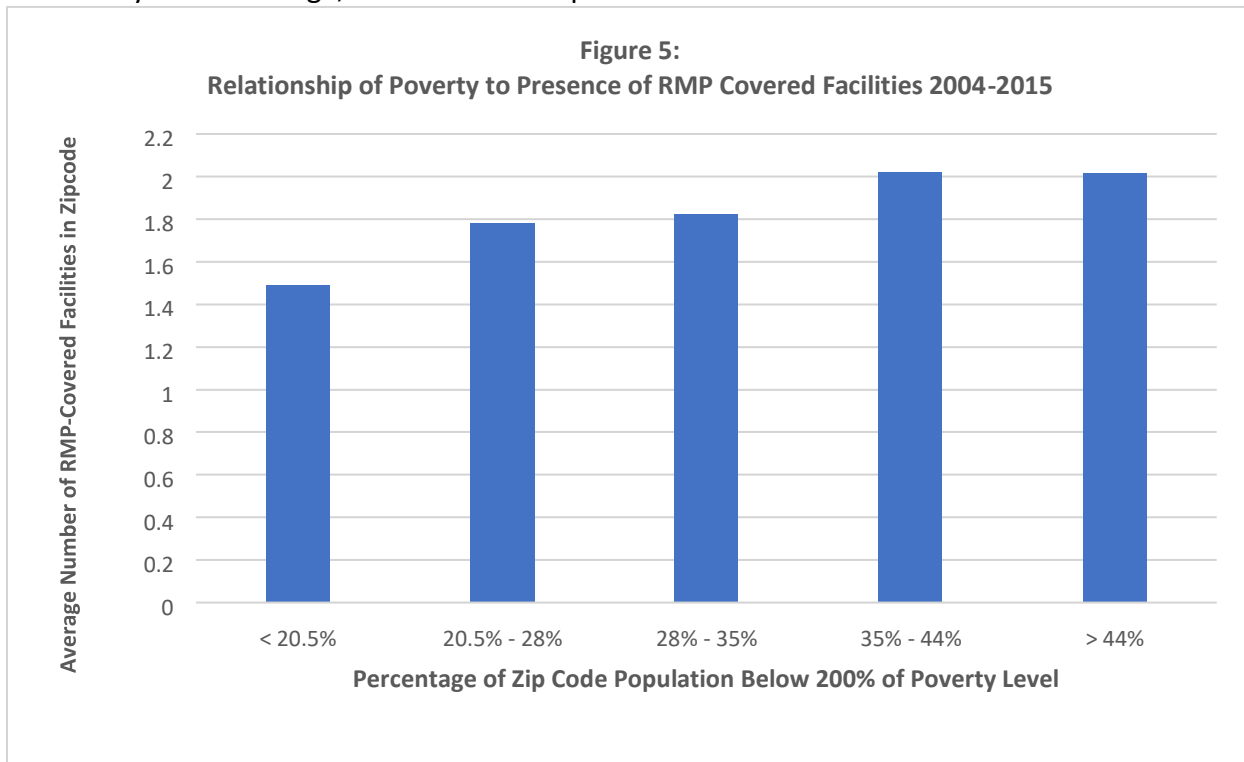
**Figure 4:
Number of People who Evacuated or Sheltered in Place per Facility
Year Before or After Implementation of the California Refinery PSM
Rule**



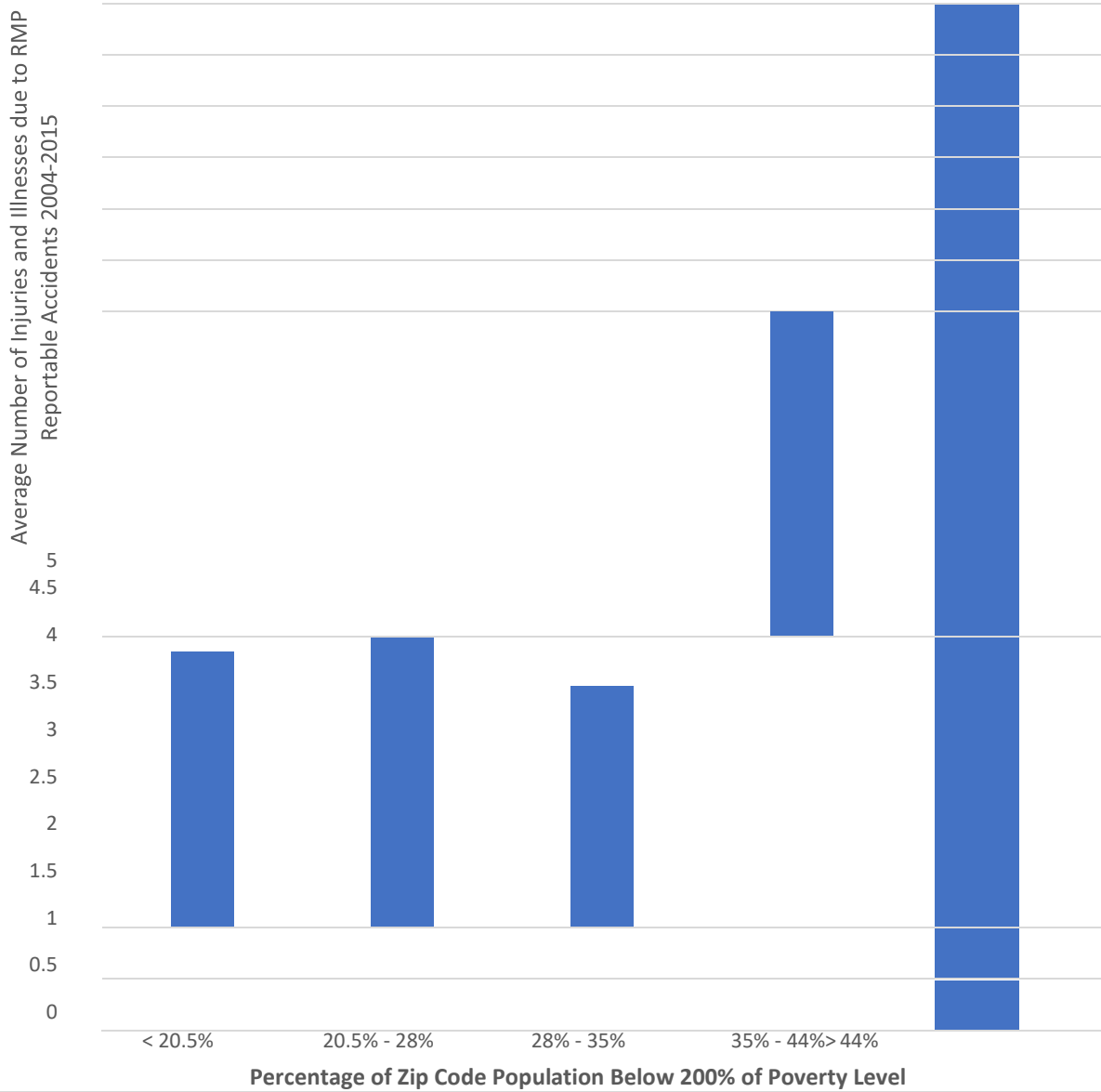
Zip Codes with High Percentages of Poor People are Overburdened with RMP-Covered Facilities and with Injuries and Illnesses due to RMP-Reportable Impact Accidents

Correlation analysis found a statistically significant relationship between the percentage of people in a zip code whose incomes are below 200% of the poverty level and the average number of RMP-covered facilities that operated in the zip code for some part of the time between 2004 and 2015 (Spearman's rho: 0.111, $p = 1.876 \times 10^{-25}$). This is illustrated in Figure 5. Similar analysis found a statistically significant relationship between the percentage of people in a zip code whose incomes are below 200% of the poverty level and the average number of injuries and/or

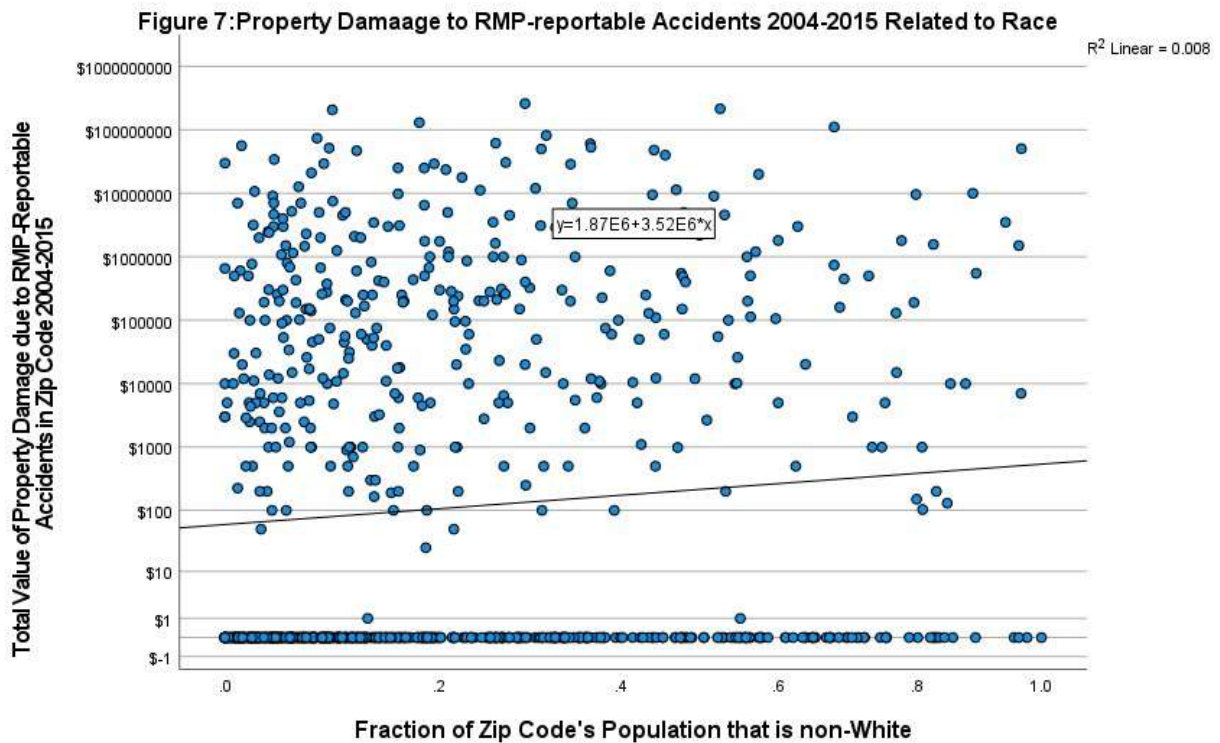
illnesses due to RMP-reportable impact accidents that occurred in the zip code between 2004 and 2015 (Spearman's rho: 0.079, $p = 0.022$). This is illustrated in Figure 6. The relationship is likely to be stronger than shown in these analyses because the analyses include only zip codes with at least one RMP-covered facility. They do not include zip codes with no RMP facilities, which may be on average, wealthier than zip codes with one or more facilities.



**Figure 6:
Relationship of Poverty to Injuries and Illnesses due to RMP-Reportable Accidents 2004-2015**



Zip Codes with High Percentages of People of Color are Overburdened with RMP-Covered Facilities, Impact Accidents, Injuries and Illnesses and Property Damage



Correlation analysis found a statistically significant relationship between the percentage of nonwhite people in a zip code and the average number of RMP-covered facilities that operated in the zip code for some part of the time between 2004 and 2015 (Spearman's rho: 0.138, $p = 1.38 \times 10^{-38}$). In addition, percentage of non-white people in a zip code was correlated with the number of impact accidents that occurred in the zip code between 2004 and 2015 (Spearman's rho: 0.13, $p = 1.62 \times 10^{-4}$), injuries and/or illnesses (Spearman's rho: 0.092, $p = 0.008$), and property damage (Spearman's rho: 0.109, $p = 0.002$, See Figure 7). The relationship is likely to be stronger than shown in these analyses because the analyses include only zip codes with at least one RMP-covered facility. They do not include zip codes with no RMP facilities, which may be on average, whiter than zip codes with one or more facilities.

Zip Codes with More RMP-Covered Facilities Experience More Impact Accidents, Injuries and Illnesses and Property Damage

Correlation analysis found a statistically significant relationship between the number of RMPcovered facilities that operated in the zip code for some part of the time between 2004 and 2015 and the number of impact accidents that occurred in a zip code during that time (Spearman's rho: 0.26, $p = 7.97 \times 10^{-15}$, See Figure 8). In addition, number of RMP-covered facilities in a zip code was correlated with injuries and illnesses (Spearman's rho: 0.083, $p = 0.015$., See Figure 9), and property damage (Spearman's rho: 0.197, $p = 5.58 \times 10^{-9}$, See Figure 10).

Figure 8: Relationship of Zip Code Facility Density to Impact Accidents 2004-2015

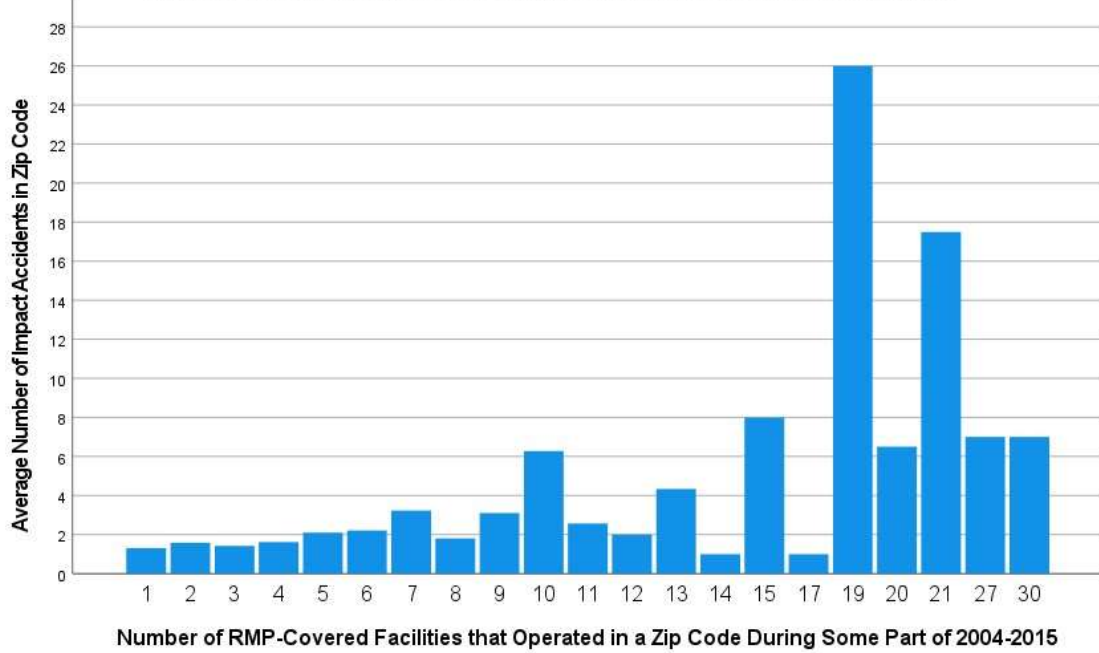


Figure 9: Relationship of Facility Density to Injuries and illnesses 2004-2015

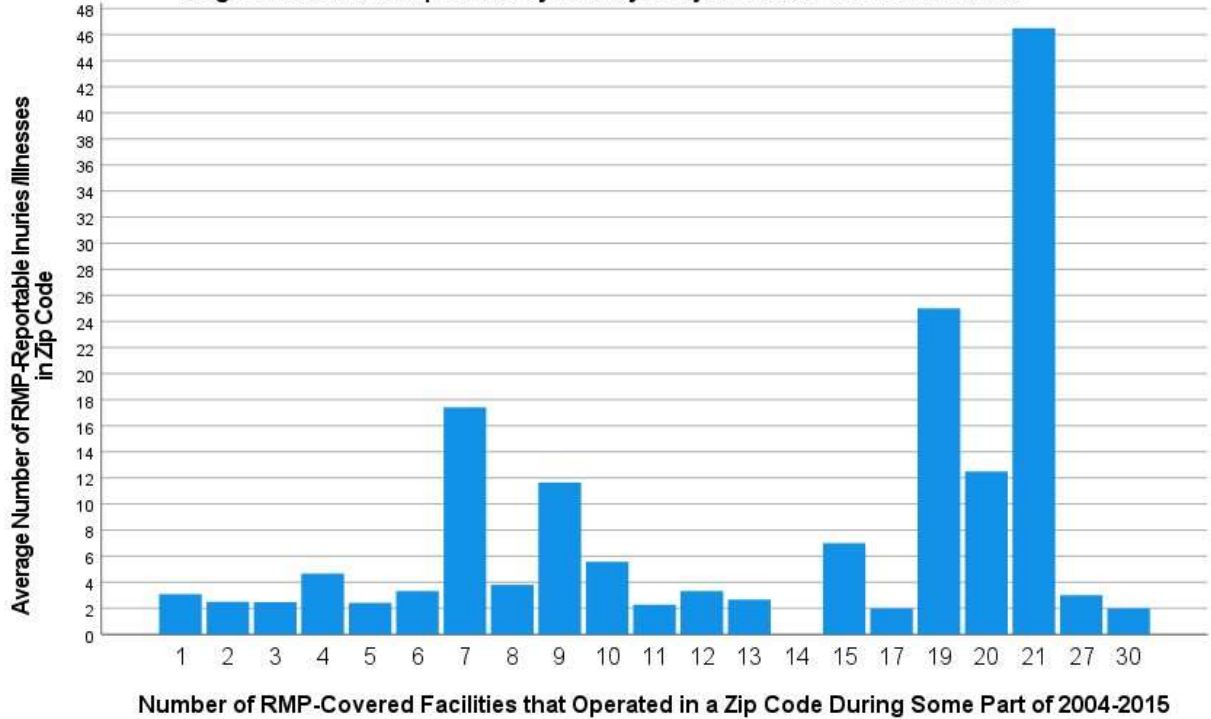
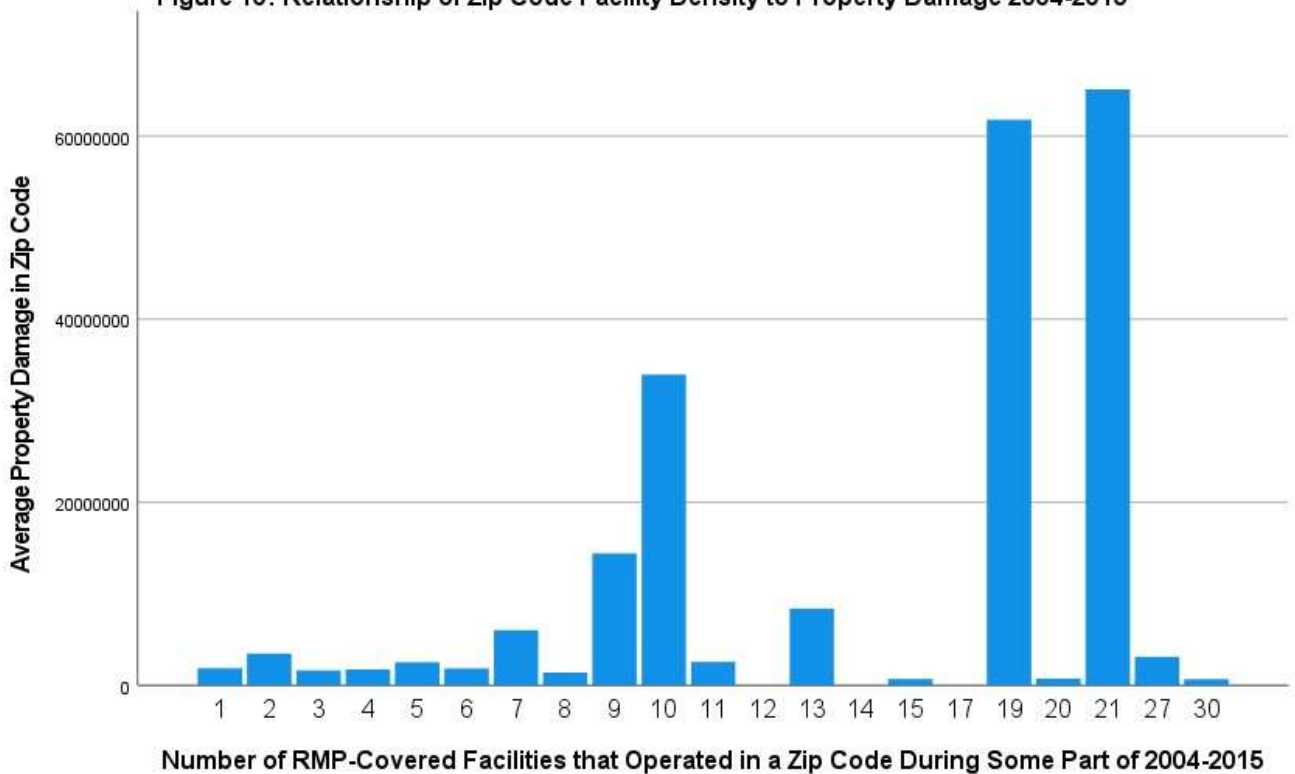


Figure 10: Relationship of Zip Code Facility Density to Property Damage 2004-2015



Conclusion

Those who say that there is no need to strengthen the Risk Management Plan Rule are basing their arguments on outdated, inaccurate data. There was no statistically significant change in impact accident rates between 2004 and 2015. There was in fact, a non-statistically significant increase in rates between 2010 and 2015. The UAW calls for strengthening the RMP rule as follows:

- To bolster the safety of workers, the rule should require worker and union participation in incident prevention, investigation, and response. It should require worker training in order to enhance safety and facilitate meaningful participation.
- It should prevent chemical disasters by ensuring hazard reduction, not merely improved response to preventable disasters. This should be done by requiring the identification and use of available inherently safer methods to eliminate or reduce catastrophic hazards.
- The rule should address disproportionate, cumulative impacts for communities with multiple RMP facilities.
- The rule should restore and implement essential requirements for safer chemicals, technologies and practices, worker training, third-party audits, root cause analysis, deregistration analysis, and emergency exercises.

Data from the EPA Risk Management Plan Database show that:

- After the effective date of the California Refinery Process Safety Management Rule, which includes worker participation and safer technologies, there were reductions in impact accident rates, injury and illness rates and rates of evacuating and/or taking shelter.
- Zip codes with high percentages of poor people are overburdened with RMP-covered facilities and with Injuries and Illnesses due to RMP-reportable impact accidents.
- Zip codes with high percentages of people of color are overburdened with RMP-covered facilities, impact accidents, injuries and illnesses and property damage due to RMP-reportable accidents.
- Zip Codes with more RMP-covered facilities experience more impact accidents, injuries and illnesses and property damage.

Technical Appendix

This appendix describes the data analysis methods used to produce the table, figures and statistical analyses above.

For the table entitled *Comparison of Number of Impact Accidents Reported in EPA's 2019 Regulatory Impact Analysis with the Number Identified from the September 2019 Database and the May 2021 Database*, the analysis was done as follows:

Accidents were extracted from the database using the variables "EPAFacilityID" and "AccidentDate" and the Min function in Microsoft Access to instruct the database to extract the smallest values onsite and offsite deaths, injuries (including hospitalization and medical care), and property damage, evacuations, or sheltering in place. This is a scientifically conservative way of both avoiding counting the same accident more than once and overestimating its impact. Accidents were counted as impact accidents if one or more of the above values was greater than zero. The total number of such accidents for each year was reported in the table. For the figures the following methods were used:

Figure 1

The calculation of rates requires denominators. The most appropriate unit for the denominator is the facility-year, which was calculated as follows:

1. Each facility was considered to have entered the program on the postmark date of its first report (postmark date was chosen over receipt date because EPA assigned the anniversary date at five years after the postmark date, rather than five years after the receipt date).
2. Facilities were considered to have left the program on their deregistration effective dates (deregistration effective dates are frequently identical or very close to deregistration dates, but where they differ, the deregistration effective date is when the facility was no longer covered by the program and the deregistration date is when EPA was informed of that fact. Hence the deregistration effective date was chosen. A few facilities reported more than one deregistration effective date. The latest such date was chosen.)
3. In the year of entry into the program, each facility was credited with the fraction of the year in which it participated. (For example, a facility that entered on May 31 would be credited with $\frac{7}{12}$ year.)
4. In the year of deregistration (for those facilities that deregistered), each facility was credited with the fraction of the year in which it participated. (For example, a facility that deregistered on May 31 would be credited with $\frac{5}{12}$ year.)
5. If entry and deregistration occurred in the same year, each facility was credited with the fraction of a year between entry and deregistration.

6. For the years between entry and deregistration, each facility was credited with a full year.
7. The total number of facility-years in each calendar year was calculated using an excel spreadsheet.
8. Rates were calculated by using the total number of accidents for a year divided by the number of facility years
9. In order to avoid artificially inflating accident rates, an accident was excluded from the numerator if it occurred before the postmark date of a facility's first report or after the facility's deregistration effective date.
10. In order to determine whether there was a meaningful trend over time (decline or increase) Kendall's Tau was applied to a data set containing the value for the variable Year with the range 2004-2015 and the variable Accident Rate corresponding to the years in question.

Figures 2-4

Accident data were extracted as described above. Facility-years were calculated as described above. Analysis was restricted to California facilities with NAICS code 32411. In addition, facilities were excluded if they had not filed a report after the effective date of the California Refinery PSM rule which was October 1, 2017. The variable "Injuries and Illnesses" (Figure 3) represents the sum of the values following variables: "InjuriesWorkers", "InjuriesPublicResponders", "InjuriesPublic", "Hospitalization", "MedicalTreatment". The variable "Number of People who Evacuated or Sheltered in Place" (Figure 4) represents the sum of "Evacuated" and "Sheltered in Place."

Figures 5 - 7

Microsoft Access was used to sum the number of facilities by zip code. A facility was excluded if the postmark date of a facility's first report was after 2015 or its deregistration effective date was before 2004. "Injuries and Illnesses" (Figure 6) is calculated as described above. "Property Damage" (Figure 7) is the sum of the values of "OnsitePropertyDamage" and "OffsitePropertyDamage." These data were matched by zip code with income and race data from the American Community Survey²⁹⁹. Spearman's rho was used for nonparametric correlation analysis.

Figures 8-10

²⁹⁹ United States Bureau of the Census (2019). *2019 American Community Survey*.


Number of facilities were aggregated by zip code as described above. Impact accidents, injuries and illnesses and property damage were calculated as described above and aggregated by zip code. Spearman's rho was used for nonparametric correlation analysis. I

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UNPREPARED FOR DISASTER: CHEMICAL HAZARDS IN THE WAKE OF HURRICANE IDA

INCIDENT CASE STUDIES OF:
SHELL CHEMICAL, East Site, Norco, LA
CORNERSTONE CHEMICAL, Waggaman, LA
CF INDUSTRIES, Donaldsonville, LA

THIS REPORT WAS
PRODUCED BY:



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REVIEWED BY:

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PHOTOGRAPHS COURTESY OF:

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The report also contains public domain images from the National Oceanic and Atmospheric Administration and the European Space Agency.

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INTRODUCTION

EXACTLY ONE MONTH AGO on August 29, 2021, Hurricane Ida landed in Port Fourchon, Louisiana as one of the most intense and damaging natural disasters to strike the state. Aside from the immediate destruction, flooding, and power outages, Ida - like Katrina and other hurricanes before it - swept through one of the nation's largest chemical, petroleum and natural gas hubs. In its aftermath, [the US Coast Guard National Response Center](#), which collects reports on oil, chemical and other discharges into the environment and forwards them to appropriate federal/state agencies for response, received 223 incident reports related to the storm.¹

Across the United States, almost [12,500 highrisk chemical facilities](#) put 39% of the US population who live within three miles of these facilities (and all the employees who work at them) at risk of toxic exposure, injury, or death.² The full vulnerability zones can extend up to twenty-five miles in radius, disproportionately impacting communities of color and low-income communities.

This report highlights just three of the industrial facilities that released toxic chemicals in the wake of Ida, and how the facility workers and people in the surrounding neighborhoods were impacted. The following case studies summarize chemical incidents related to Hurricane Ida at: the Shell Chemical, East Site facility in Norco, LA; the Cornerstone Chemical facility in Waggaman, LA; and the CF Industries facility in Donaldsonville, LA. Prior incidents and chemicals in use at any given time at these facilities are also listed, along with findings and recommendations that can be drawn from this information.

The Shell Chemical, East Site facility in Norco, LA reported releases of hydrogen, hydrogen sulfide, benzene, butadiene, and natural gas (methane). Reports noted that "chemicals are not being burned off properly." Health hazards of butadiene include cancer and reproductive toxicity. [Benzene](#) is known to cause cancer in humans, and is also linked to blood and bone marrow damage, and reproductive health effects in women, among other

health and environmental concerns. At any given time, the facility has up to 27.8 million pounds of high-risk chemicals on-site. Over 50,000 people live within 3.1 miles of the facility; 49% are people of color and the per capita income is only \$32,587. Full study on pg. 7.

The Cornerstone Chemical facility in Waggaman, LA released unknown amounts of sulfur dioxide and sulfur trioxide, and 7,000 pounds of ammonia, into the air. Anhydrous ammonia, which this facility may have more than 50 million pounds of on-site at any given time, is acutely toxic, is a potential endocrine (hormone) disruptor, can cause severe skin burns and eye damage, and poses other health and environmental hazards. Health hazards of sulfur dioxide include developmental toxicity, endocrine (hormone) disruption, acute toxicity if inhaled, and other health and environmental hazards. At any given time, this facility can have more than 88 million pounds of toxic and hazardous chemicals on-site. Almost 30,000 people live within 3.1 miles of this facility, of which 69% are people of color. The per capita income of people living near the facility is \$24,476, less than half the per capita income of the metro area. Full study on pg. 13.

The CF Industries facility The CF Industries facility in Donaldsonville, LA reported releases of anhydrous ammonia to the air that employees were “unable to secure.” Anhydrous ammonia is acutely toxic, is a potential endocrine (hormone) disruptor, can cause severe skin burns and eye damage, and poses other health and

environmental hazards. At any given time, the facility has up to 328 million pounds of anhydrous ammonia on-site. Over 10,000 people live within 3.1 miles of the facility, with a per capita income of \$21,754, less than half that of the surrounding metro area. Full study on pg. 18.

Information available about these, and other, chemical incidents during Hurricane Ida is still incomplete and developing even one month later. Amounts of chemicals released, whether additional chemicals were also released, onsite and off-site environmental and health impacts, damage estimates, and specific causes of releases are still unknown or unconfirmed.

These case studies corroborate the already extensive public record, and years of demand from endangered neighborhoods, facility workers, and disproportionately impacted communities of color and low-income communities, demonstrating that existing chemical disaster prevention rules are woefully inadequate.

The U.S. Environmental Protection Agency’s (EPA) [Risk Management Plan](#) rule regulates high-risk industrial and commercial facilities that use or store certain [hazardous substances](#) above threshold amounts. Covered facilities must identify the potential effects of a chemical incident, identify steps the facility is taking to prevent an incident, and spell out emergency response procedures. But despite the fact that the RMP program was mandated by Congress specifically to prevent chemical catastrophes, decades of weak rules and lack of prevention

requirements have resulted in constant, often avoidable releases and disasters. For example, facilities aren't required to have back-up power or air monitoring on site; incident plans aren't required to address potential threats from extreme weather events and other impacts of climate change; workers are not fully involved in planning and prevention; facilities are not required to implement safer technological or chemical alternatives even when those are available; and cumulative hazards from multiple facilities in the same neighborhood are not considered. Reviewing just three incidents during just one storm (Hurricane Ida) demonstrates that:

- Many high-risk chemical facilities are not prepared for extreme weather events and other natural disasters, which are increasing due to climate change;
- Prevention and safety recommendations made by the U.S. Chemical Safety and Hazard Investigation Board, the U.S. Government Accountability Office, the Center for Chemical Process Safety, and other independent experts are not required to be implemented; and most facilities are not voluntarily doing so;
- Many communities, especially communities of color and low-income communities, are disproportionately exposed to multiple, cumulative chemical exposures and hazards, which are not addressed in federal chemical

disaster prevention rules or other regulations;

- Loopholes in federal chemical facility safety policies are resulting in the full extent of chemical hazards and potential consequences at these facilities and in these communities being underestimated;
- Stronger federal prevention rules, especially requirements to switch to safer chemicals and technologies when available, could help prevent future disasters.

These Ida-related incidents are just the latest in a string of chemical releases, fires, and explosions caused by increasing extreme weather events. Hurricane Harvey in 2017 caused widespread chemical releases in Texas, including almost 1.5 million pounds of toxic air emissions. The Arkema chemical facility in Crosby, TX, experienced flooding, uncontrolled fires, an explosion, and serious toxic emissions. During Hurricane Laura in 2020, the Biolab chemical plant in Westlake, LA caught fire and burned for several days, releasing large amounts of toxic chlorine gas and completely destroying the facility.

Sadly, more than [100 harmful incidents occur every year in the United States](#), that bear strong similarities to the ones profiled here in Norco, Donaldsonville, and Waggaman, Louisiana. Each facility and incident can endanger up to a million people. Nationally, the costs and consequences of these often preventable incidents are dramatic: in just one decade,

RMP facility incidents caused over \$2 billion in property damage, and injury, death, shelter in place, or evacuation of half a million people.

The good news is that future incidents like these could be prevented with stronger federal protections in place. These three high-risk facilities, along with [506 others in Louisiana](#), are regulated under the EPA's RMP program, among almost 12,500 facilities nationwide. Decades of independent safety and prevention recommendations, and existing hazard

METHODOLOGY

Each case study summarizes incidents at these release scenario and alternative release scenarios related to Hurricane Ida. The studies

s. list prior incidents and chemicals in use at any given time at these facilities, and provide find-

are findings and recommendations that can be drawn publicly available, and most of the worst-case from this information.

Much of this information is drawn directly from [Risk Management Plans reported to EPA by these companies](#). EPA's Risk Management Plan (RMP) rule "requires facilities that use extremely hazardous substances to develop a Risk Management Plan. These plans must

scenarios are not publicly available at all (only very limited information is accessible, and only through official federal reading rooms). The lack of public access to RMP information severely limits the ability of at-risk communities to understand the hazards posed on them, participate in their own protection, or advocate for safety

reduction policy models, exist and can be implemented nationally. What has been missing are national requirements to adopt and implement these common-sense measures.

Action by the Biden Administration and the Environmental Protection Agency (EPA) is urgently needed to prevent chemical disasters by strengthening the Risk Management Plan (RMP) rule. Specific recommendations are outlined in the conclusion of this report.

These plans must include an [Offsite Consequence Analysis \(OCA\)](#), including a worst-case

measures.
be revised and resubmitted to EPA every five years.”

The rule requires facilities that use certain extremely hazardous substances to develop a plan that:

- identifies the potential effects of a chemical incident;
- identifies steps the facility is taking to prevent an incident, and;
- spells out emergency response procedures should an incident occur.

SHELL CHEMICAL - EAST SITE



KEY LESSONS: In the absence of federal requirements, high-risk chemical facilities are not planning or preparing for increasingly common and severe natural disasters, and the current RMP program is not addressing the cumulative hazards of many facilities in close proximity.

SUMMARY OF IDA-RELATED INCIDENTS AT THIS FACILITY

At any given time, more than 27 million pounds of hazardous and toxic chemicals may be on-site in Shell Chemical's East Site facility in Norco, Louisiana.

On August 28, 2021, 9:27 a.m., [the National Response Center](#) received its first call from Shell related to Hurricane Ida, a day before landfall. According to the report, "Caller states an unknown amount of hydrogen release to the flare and into the

atmosphere. The release was from a planned unit shut down during Hurricane Ida." The remedial

September 3, 2021: 15136 River Road, Norco, St. Charles Parish, Louisiana

action is listed as "actively flaring until the storm passes."³

On September 1, NRC issued an update on Shell's East Site in Norco: "Adding hydrogen sulfide, benzene, and butadiene to this release. The site still has no power, no water and no steam. Unknown rate of release for each material." It added: "Site is still down and they are monitoring the flares."⁴ The same day, September 1, EPA issued a "damage report." It states: "Heavy flaring to evacuate systems. Will stop when system is empty. Building is damaged. No further action."⁵

Grist reported on September 2: "Despite Shell's assurances that the Norco plant is 'safe and secure,' several sections of the plant appeared to be inundated with the remnants of flash flooding from Ida, with water sitting more than two feet high in many places.

State agencies were reportedly being deployed to monitor the air around this plant on September 9. "The refinery's lack of electricity and inability to supply steam and nitrogen to the flares means chemicals are not being burned off properly, causing thick black smoke to pour into the sky above residents who are repairing their damaged roofs and cutting broken branches from trees," The

Guardian reported. 'Community members in Norco have a right to know what chemicals are in the air they are breathing,' said Wilma Subra, Louisiana resident and Technical Advisor for the Louisiana Environmental Action Network.

On September 12, a Shell Chemical press release stated: "The Shell Norco Manufacturing facility continues to assess impacts from Hurricane Ida. The site continues to flare residual light hydrocarbon material with visible smoking. We are continuing to complete repairs and we are making improvements to minimize visible flaring until power is fully restored..."

On September 16, 12:55 p.m., the National Response Center released an incident update. It added natural gas (methane) to the list of materials "discharged." Further, "the amount released is currently unknown. The power is back on and the facility is going through systems checks. Flaring will be ongoing until the facility is fully operational. Media interest is low. The release rate will be changed from 24,000 pounds [per hour] to unknown." It said the remedial action is to keep "actively flaring until the facility has completed all systems checks and is fully operational."⁶

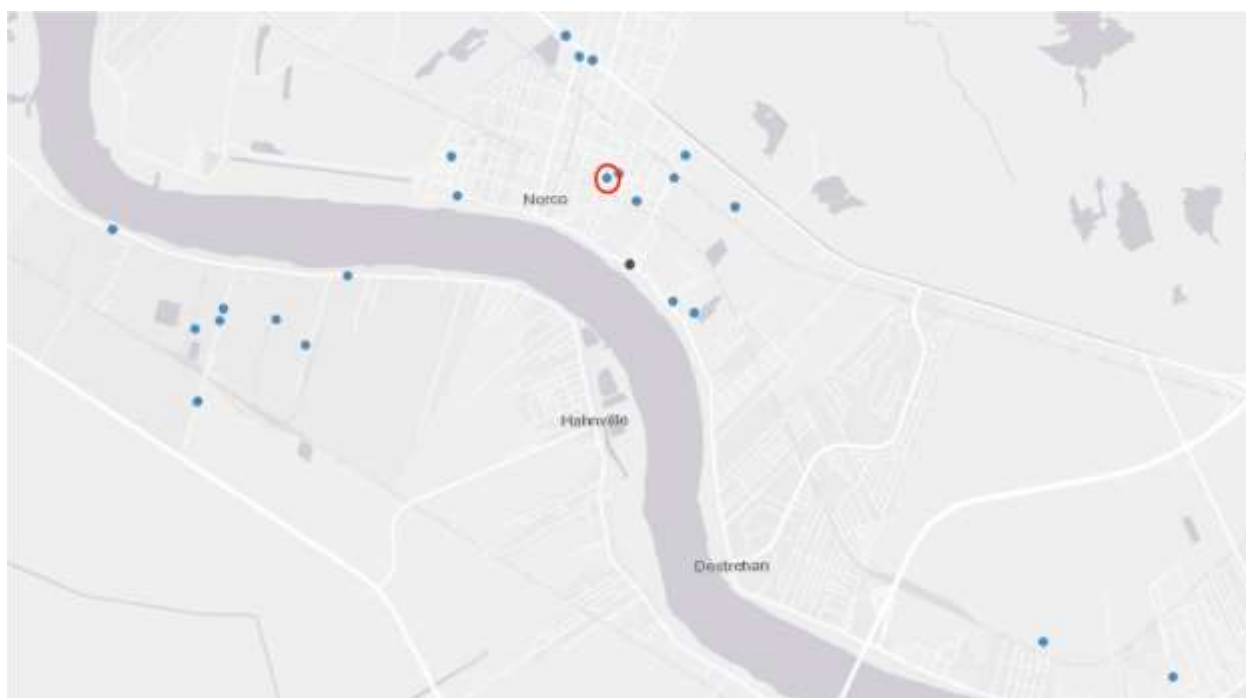
KEY FINDINGS OF THIS INCIDENT

Worst case scenarios from the most recent RMP for this facility assume low wind speeds. During the passage of Hurricane Ida, wind speeds at the nearby Louis Armstrong New Orleans

International Airport reached [90 mph](#). While the worst-case release scenario for a toxic gas release may be slow moving air conditions, other dangerous release scenarios might be made worse by high winds.⁷ And the extremely high winds, storm surges, and flooding experienced during hurricanes (or severe conditions experienced during other natural disasters like wildfires) are not considered in most Risk Management Plans or addressed in most prevention plans. Climate change hazards and the increasing frequency of intense hurricanes in New Orleans are not currently being reflected in this facility's

RMP.

Some of the chemicals released from the Shell Norco plant around the passage of Ida are listed in the company's RMP. According to the latest submission, this facility has on-site, at any given time, up to 3,108,000 pounds of butadiene (plus over 10,000,000 pounds of butadiene and other chemicals in flammable mixtures), 55,215 pounds of methane, and 20,000 pounds of hydrogen. Hydrogen sulfide was reported to have been released, but no sulfur compounds are declared to be stored as such in the facility.



In red, the Shell Norco Chemical Plant East Site facility. Blue circles show other facilities in the region that Benzene was also reported to be released, are subject to RMPs as per 2014 data.

although it does not appear as stored or used according to their RMP. In total, they report almost 28 million pounds of hazardous chem-

icals, some of which are highly toxic and/or

A recent [analysis by the Center for Progressive](#)

[Reform](#), Earthjustice, and the Union of Con-

flammable (see table below). Reducing storage cerned Scientists concluded that "of roughly or changing to safer chemicals or technologies

12,331 RMP facilities in U.S. states and terri-

would avoid the current threat posed by these tories, 3,856 (one third) face a growing risk of hazardous chemicals present in the facility.

natural disasters due to climate change." As shown in a [2014 map](#), Shell Chemical's Norco

[EPA's EJScreen tool](#) measures environmental facility and the nearby community are situated

injustice in many ways, and uses a five-kiloin an area with other RMP facilities that also

meter radius (3.1 miles) around a facility as the store and use hazardous chemicals.

This rep-

standard area. In this area around Shell Norco, resents an unpredictable threat to workers, the

there are 50,067 people, 49% of whom are

⁸ community and the environment, particularly people of color.

when extreme weather events

simultaneously hit the chemical facilities in the area. A new EPA ranks the community cancer risk from

RMP policy should also address cumulative

air toxics in the highest possible percentile

⁹ The per capita income is hazards posed by several RMPs facilities

in the range (95% to 100%). same area.

\$32,587. A new RMP policy should address the cumulative impacts of industries, the result-

The facility's Risk Management Plan does not

ing vulnerability of communities to additional appear to consider floods or extremely high

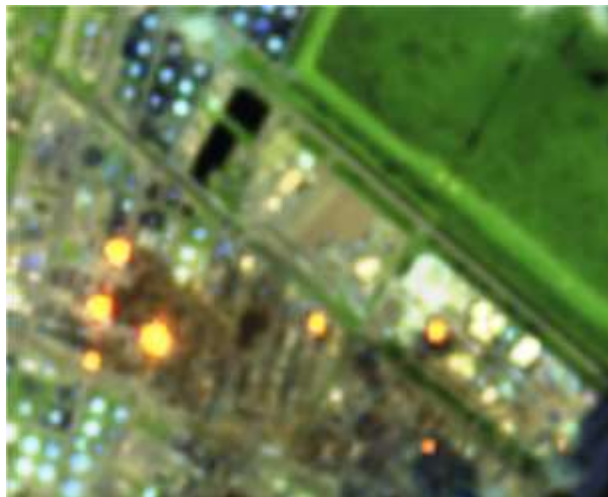
pollution, and disproportionate impacts on winds, but the facility was flooded as a conse-

people of color and low-income people.

occurred.¹⁰ After Hurricane Harvey, the [U.S. Chemical Safety and Hazard Investigation Board \(CSB\) called for more robust industry guidance](#) to help hazardous chemical facilities better prepare for extreme weather events. Some of the following recommendations could have helped prevent the incidents provoked by Hurricane Ida.¹¹

“Develop broad and comprehensive guidance to help companies assess their U.S. facility risk from all types of potential extreme weather events...Include guidance for each of the following:

- Addressing common mode failures of critical safeguards or equipment that could be caused by extreme weather events, including but not limited to flooding. For flooding scenarios, sufficient independent layers of



protection should be available if flood water heights reach the facility.

- Evaluating facility susceptibility to potential extreme weather events.

quence of Hurricane Ida, and very high winds

- Relevant safety information such as flood maps should be incorporated as process safety information
- Involving relevant professional disciplines, including engineering disciplines, to help ensure risk assessments and process hazard analyses are as robust as practicable for any given facility.”

Flares and other air pollution from Shell Chemical's East Site in Norco, Louisiana, as seen from Europe's Sentinel satellite, September 2, 2021. A shortwave infrared wavelength filter makes these releases more apparent than is apparent to the naked eye. European Space Agency.

In the same report based on the experience of Hurricane Harvey, the CSB also recommends: “Facilities should perform an analysis to determine their susceptibility to extreme weather events. Companies should compile key safety



information such as flood maps within their process safety information programs. This important safety information should be evaluated to determine whether any

portions of their facilities are located within the 100- year or 500-year flood plain. In addition, companies should assess seismic hazard maps to determine the risk of earthquakes and consider the risk of other extreme weather such as highwind events. Companies should evaluate risk assessments and the adequacy of relevant safeguards by applying facility process safety management programs, such as process hazard analyses or facility siting programs. Facilities should strive to apply a sufficiently conservative risk management approach when evaluating and mitigating the potential effects of extreme weather scenarios."

By the time the EPA did an assessment¹³ on September 1, there was still no power at the facility. The facility remained without power at least until September 12, [according to OPIS PetroChemWire](#). Backup systems should have been required if climate change and natural disaster potential impacts had been considered. Also, as noted in [the U.S. Chemical Safety Hazard and Investigation Board bulletin](#) "After Katrina: Precautions Needed During Oil and Chemical Facility Startup," "the startup of major processes is a hazardous phase in the operation of oil refineries and chemical plants."

PRIOR INCIDENTS

January 11 to January 20, 2020: Shell's Norco complex was "creating what at times has been a flare over its facility large enough that it can be seen for miles," [the New Orleans Advocate reported](#).

2018: The [New Orleans Advocate reports](#), "Earlier this year, the EPA and Shell reached a proposed settlement over improper operation of flares at that company's Norco plant, resolving decades of allegations that the plant was violating the Clean Air Act. In February, a federal judge ordered the company to spend \$10 million on pollution-control equipment, plus a \$350,000 fine. In that case, federal regulators accused the industry giant of failing to properly control their industrial flares to such a degree that officials allowed chemicals capable of causing cancer and other ailments to permeate the air around the plant."

December 1 to December 3, 2012: [The New Orleans Times-Picayune reports](#), "For more than 30 hours, Shell Chemical, located on the Motiva Enterprises campus in Norco, has been experiencing elevated flares, shooting flames and leaking thick black smoke into the air above St. Charles Parish. According to a report submitted to the U.S. Coast Guard National Response Center, the plant is releasing unknown amounts of hydrogen sulfide, butadiene and benzene, a known carcinogen."

May 8, 2012: Lightning strikes the chemical plant. Chemicals are released and burned for more than a day. Pollution included benzene, butadiene, carbon monoxide, ethylene, hydrogen sulfide, nitrogen oxide, propylene, sulfur dioxide, and xylene.

May 5, 1988: A catalytic cracker [blows up](#), killing seven employees, destroying

neighborhoods, and releasing 159 million pounds of chemical waste, reported in the Washington Post.

COMPANY & FACILITY BACKGROUND

Address:

Shell Norco Chemical Plant East Site
15136 River Road
Norco, LA 70079

Geocoordinates:

Longitude: -90.409900 Latitude:
29.995500

Plant description: At Norco, [Shell Chemical LP manufactures](#) lower olefins (ethylene, propylene, butadiene). These chemicals are used in the production mainly of plastics, such as polyethylene and synthetic rubber.

Hazardous Chemicals Use/Storage: Shell East Plant Norco Risk Management Plan

According to the facility's latest available RMP, this facility has on-site, at any given time, up to 27.8 million pounds of reportable chemicals, as detailed in the table below.¹²

CHEMICAL/ CAS NUMBER	STORAGE (lbs)	HAZARDS
Ethylene 74-85-1	5,477,311	Extremely flammable gas
1,3-Butadiene 106-99-0	3,108,000	Carcinogen, Mutagen, Reproductive Toxicity - Female, Developmental toxicity, Extremely flammable gas
Ethane 74-84-0	1,999,372	Extremely flammable gas
Propylene 115-07-1	1,460,533	Extremely flammable gas
Butene /25167-67-3	261,800	Extremely flammable gas
Acetylene / 74-86-2	240,000	Extremely flammable gas
Propane/ 74-98-6	151,009	Extremely flammable gas
Methane/ 74-82-8	55,215	Extremely flammable gas
Cyclohexylamine 108-91-8	35,000	Extremely flammable gas, global warming potential
Hydrogen / 1333-74-0	20,000	Extremely flammable gas
FLAMMABLE MIXTURES WITH		
Pentane 109-66-0, Butane 106-97-8, Isopentane 78-78-4, 1,3-Butadiene 106-99-0	8,000,000	Pentane: Systemic Toxicity/Organ Effects (Single Exposure - Aspiration Hazard) Butane: May cause cancer, May cause genetic defects (Germ cell mutagenicity), Extremely flammable gas Isopentane: May be fatal if swallowed and enters airways (Aspiration hazard)
Flammable Mixture of 1,3-Butadiene 106-99-0, Butane 10697-8	2,880,000	See above
Flammable Mixture of Butane 106-97-8, Hydrogen 1333-74-0, Isobutane 75-28-5, Ethane 74-84-0, Propylene 115-07-1, Propane 74-98-6, Methane 74-82-8, and Ethylene 74-85-1	2,880,000	Isobutane: Extremely flammable gas
Flammable Mixture of Propylene 115-07-1, Ethane 74-84-0, 2-Butene-trans 624-64-6, 2-Butene-cis 590-18-1, Isopentane 78-78-4, Ethylene 74-85-1, Hydrogen 1333-74-0, Isobutane 75-28-5, Methane 74-82-8, Propane 74-98-6, and Pentane 109-66-0	1,800,000	2-Butene-trans: Extremely flammable gas 2-Butene-cis: Extremely flammable gas
Methane 74-82-8, 2-Butene-trans 624-64-6, 1-Butene 106-98-9, Butane 106-97-8, 2-Butene-cis 590-18-1, Isopentane 78-78-4, Isobutane 75-28-5	1,000,000	1-Butene: Extremely flammable gas

Isobutane 75-28-5, Butane 106-97-8, and 1,3-Butadiene 10699-0	23,000	1-Butene: Extremely flammable gas
Pentane 109-66-0, Isoprene 78-79-5 Isopentane 78-78-4	10,000	1-Butene: Extremely flammable gas
TOTAL	27,885,472 pounds	

CORNERSTONE CHEMICAL COMPANY



KEY LESSONS: Regulatory loopholes underestimate the full extent of hazards present, and the current RMP rule fails to address disproportionate hazards and cumulative impacts faced by communities of color and low-income communities.

SUMMARY OF IDA-RELATED INCIDENTS AT THIS FACILITY

At any given time, Cornerstone Chemical in Waggaman, Louisiana (just across the Mississippi River from New Orleans), can have more than 88 million pounds of toxic and hazardous chemicals on-site.

On August 28, 2021, 22:52 p.m., with Hurricane Ida approaching but not yet in Louisiana, a caller to 911 reached the Louisiana State Police. [The caller reported](#), “a process safety valve lifted and released ammonia” at Cornerstone. “The release has been stopped and the amount of

ammonia actually released is being investigated.”¹⁴ The day after Ida passed overhead, August 30, 12:39 p.m., a caller reported “the release of an unknown amount of sulfur dioxide and sulfur trioxide from a molten sulfur storage tank. The released materials went into the air and atmosphere. The cause of the release is due to Hurricane Ida.”

September 4, 2021: River Parishes, LA

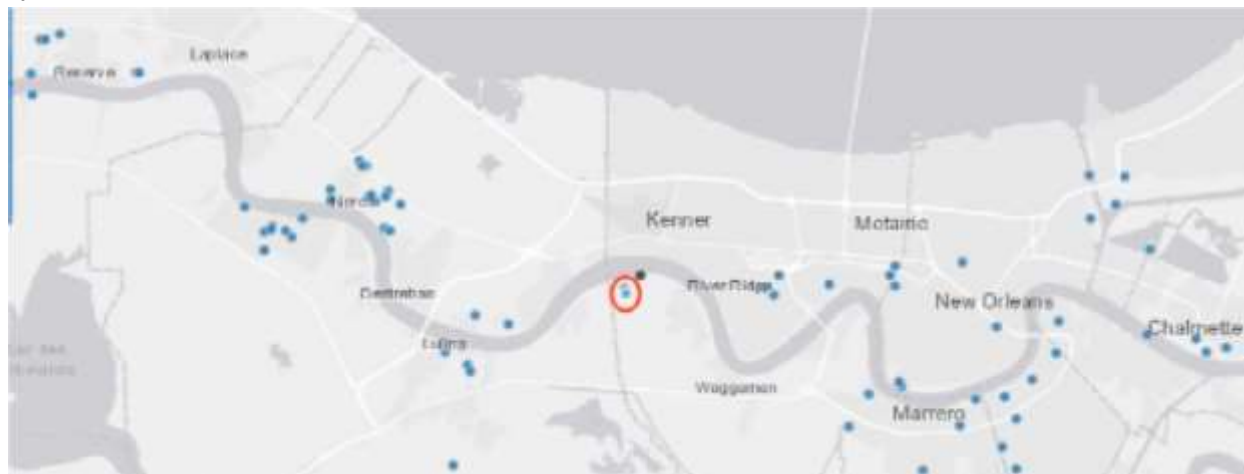
[C&EN later reported](#) that the tank may have been struck by lightning.

On August 31, Cornerstone Chemical published a [press release](#) about the hurricane’s impact on the facility. It claimed, “There have been no injuries to Cornerstone personnel, nor environmental release.”

However, On September 9, the U.S. Environmental Protection Agency filed a damage assessment¹⁵ and reported that

7,000 pounds of ammonia and unknown quantities of sulfur dioxide and sulfur

RMP.



trioxide had been released. The EPA also reports that the facility flooded by less than 1 feet.

KEY FINDINGS OF THIS INCIDENT

Worst case scenarios from the most recent RMP for this facility assume low wind speeds. During the passage of Hurricane Ida, wind speeds at the nearby Louis Armstrong New Orleans International Airport reached [90 mph](#).

While the worst-case release scenario for a toxic gas release may be slow moving air conditions, other dangerous release scenarios might be made worse by high winds.¹⁶ And the extremely high winds, storm surges, and flooding experienced during hurricanes (or severe conditions experienced during other natural disasters like wildfires) are not considered in most Risk Management Plans or addressed in most prevention plans. Climate change hazards and the increasing frequency of intense hurricanes in New Orleans are not currently being reflected in this company's

Two of the chemicals released from Cornerstone around the passage of Ida are listed in the company's RMP. According to this [latest submission](#) (May 26, 2017), this facility has on-site, at any given time, up to 51,180,000 pounds of anhydrous ammonia and 7,600 pounds of sulfur dioxide. Cornerstone also has on-site millions of pounds of other flammable mixtures and toxic chemicals (see table below). These include the storage of up to 230,000 pounds of hydrocyanic acid and 7 million pounds of Oleum (fuming sulfuric acid mixture with sulfur trioxide). Two other recent incidents involved this hazardous chemical. Reducing storage or changing to safer chemicals or technologies would avoid the current threat posed by the ammonia and other hazardous chemicals present in the facility.

In addition to the ammonia in Cornerstone Chemical, this facility consumes ammonia from a \$860 million plant built and owned by Dyno Nobel inside the [same complex](#).

In red, the Cornerstone Chemicals facility. Blue circles show other facilities in the region that are subject to

RMPs as per 2014 data.

In their [RMP](#) Dyno Nobel reports they have at their plant 77,161,792 lbs of anhydrous ammonia. Combined, this means that at any given time, there could be 126 million pounds (63,000 tons) of anhydrous ammonia at the Waggaman complex. This more than doubles the amount of ammonia reported by Cornerstone and significantly increases the amount of a hazardous chemical that could eventually be subject to an incident in the same area. An updated RMP rule should account for such situations.

EPA's [EJScreen tool](#) measures environmental injustice in many ways, and uses a five-kilometer radius (3.1 miles) around a facility as the standard area. In this area around Cornerstone, there are 28,861 people, 69% of whom are people of color. EPA ranks the community cancer risk from air toxics in the highest possible percentile range (95% to 100%).¹⁷ [The per capita income](#) is \$24,476. This is less than half (45%) the per capita income (\$54,363) of the New Orleans-Metairie metropolitan area in 2019.

A new RMP policy should address disproportionate impacts on communities such as those around Cornerstone.

[A recent analysis by the Center for Progressive Reform](#), EarthJustice, and the Union of Concerned Scientists concluded that "of roughly 12,331 RMP facilities in U.S. states and territories, 3,856 (one third) face a growing risk of natural disasters due to climate change." As shown in the [2014 map](#) above the Cornerstone Chemical Company plant in

Waggaman and the nearby community are situated in an area with other RMP facilities that also store and use hazardous chemicals. This represents an unpredictable threat to workers, the community and the environment, particularly when extreme weather events simultaneously hit the chemical facilities in the area. A new RMP policy should also address cumulative hazards posed by several RMP facilities in the same area.

It is unclear¹⁸ if the facility's Risk Management Plan specifically considered floods or extremely high winds, but the facility was flooded as a consequence of Hurricane Ida, and very high winds occurred. After Hurricane Harvey, [the U.S. Chemical Safety and Hazard Investigation Board \(CSB\) called for](#) more robust industry guidance to help hazardous chemical facilities better prepare for extreme weather events. Some of the following recommendations could have helped prevent the incidents provoked by Hurricane Ida.

"Develop broad and comprehensive guidance to help companies assess their U.S. facility risk from all types of potential extreme weather events...Include guidance for each of the following:

- Addressing common mode failures of critical safeguards or equipment that could be caused by extreme weather events, including but not limited to flooding. For flooding scenarios, sufficient independent layers of protection should be available if flood water heights reach the facility.

- Evaluating facility susceptibility to potential extreme weather events. Relevant safety information such as flood maps should be incorporated as process safety information.
- Involving relevant professional disciplines, including engineering disciplines, to help ensure risk assessments and process hazard analyses are as robust as practicable for any given facility.”

In the same report based on the experience of Hurricane Harvey, CSB also recommends: “Facilities should perform an analysis to determine their susceptibility to extreme weather events. Companies should compile key safety information such as flood maps within their process safety information programs. This important safety information should be evaluated to determine whether any portions of their facilities are located within the 100- year or 500-year flood plain. In addition, companies should assess seismic hazard maps to determine the risk of earthquakes and consider the risk of other extreme weather such as highwind events. Companies should evaluate risk assessments and the adequacy of relevant safeguards by applying facility process safety management programs, such as process hazard analyses or facility siting programs. Facilities should strive to apply a sufficiently conservative risk management approach when evaluating and mitigating the potential effects of extreme weather scenarios.”

PRIOR INCIDENTS

Cornerstone has a “long history of accidents and accidental releases,” [notes Mark Schleifstein of the New Orleans Advocate](#). On April 2019, Della Hasselle of the New Orleans Advocate [reviewed the company’s track record](#) of incidents and violations.

“Of the 2,253 industrial facilities in Jefferson Parish, the EPA has flagged the Cornerstone plant as one of 62 facilities, or just 3 percent of the total, to have been charged with a ‘significant violation’ of federal pollution laws. That violation happened when the company failed to submit a report showing how much waste it was discharging into nearby bodies of water, the EPA alleged in records.”

The report continues, “Workers at the plant have been responsible for several ammonia releases that have resulted in as many as 300 pounds of the chemical being released into the air at a time, sometimes for as long as 17 hours straight, documents show. Nearly a half-dozen ammonia leaks were reported in 2014, 2015 and 2018. Some resulted in fines for the company because they were due to inadequate mechanics — including undersized or failing pumps and other poorly maintained control devices — or from human error. Ammonia can cause respiratory distress and “serious burns” in the mouth, lungs and eyes, according to the EPA.”

June 2020: Residents in Harahan, Waggaman and River Ridge complained of noxious fumes wafting through their neighborhoods from Cornerstone’s Waggaman facility, among others. Despite

the local protest, the Jefferson Parish Council allowed Cornerstone to build a new cyanide plant at the facility. Faimon Roberts of the [New Orleans Advocate reported](#), "Under the settlement, the company abandoned plans to build two new 26,000 gallon storage tanks as part of its new plant and instead will build two new 4,500-gallon 'process vessels' that will be used in hydrogen cyanide storage and production... River Ridge resident Jenny Zimmer said, 'Hydrogen cyanide is not safe. We don't want it.'

April 2019: A pipe at Cornerstone leaked 3,600 gallons of sulfuric acid.

August 14, 2017: Due to "human error," [according to Cornerstone's RMP](#), Cornerstone released an undisclosed amount of hydrocyanic acid for fourteen minutes. The acid evaporated into the atmosphere. One worker was injured.

May 2017: Cornerstone released 234 pounds of cyanide into the Mississippi River, according to the same RMP.

March 25 to March 28, 2017: Due to "equipment failure" Cornerstone released hydrocyanic acid gas for a four day period. One worker was injured, according to the same RMP.

2016: [The New Orleans Advocate](#) reported that the company was the fourth largest polluter of all cyanide compounds, releasing 599,528 pounds into underground wells.

2011: Three workers were exposed to cyanide gas, one of whom was sent to the

hospital, according to the same report.

COMPANY & FACILITY BACKGROUND

Address:

10800 River Road
Waggaman, LA 70094

Geocoordinates:

Longitude: -90.270472 Latitude:
29.958889

Plant description: According to the company's [RMP](#), the site "consists of continuous manufacturing plants producing a variety of end products, including acrylonitrile, melamine, urea and sulfuric acid. Processes at the Fortier facility that produce regulated substances are acrylonitrile, melamine, and sulfuric acid."

Fortier is the name of the family that once owned the Orange Grove Plantation which occupied this land, according to [Cornerstone's history](#).

American Cyanamid purchased the property in 1952. [Archives show](#) that in 1858, a prior owner of the Orange Grove Plantation sold all of his “property” including a “Sugar house, steam engine, dwelling house, negro cabins, and the following slaves attached to said plantation.” The advertisement then lists 112 people for sale, aged 1 month to 65 years old. The original inhabitants of the

New Orleans area were the [Chitimacha](#).

Today, this land’s occupants produce petrochemicals. Cornerstone’s products are used in the manufacture of plastics including formaldehyde resins and synthetic rubber.

**Hazardous Chemicals Use/Storage:
Cornerstone Chemical’s Risk**

Chemical/CAS	Storage (lbs)	Hazards
Ammonia (anhydrous) 766441-7	51,080,000	Potential Endocrine Disruptor, Acute Toxicity if inhaled, Asthmagen, Causes severe skin burns and eye damage, Causes serious eye damage, Very toxic to aquatic life, Persistent in the environment, Causes damage to organs through prolonged or repeated exposure/specific target organs/systemic toxicity following repeated exposure
Acrylonitrile 107-13-1	23,800,000	Carcinogen, May damage fertility or the unborn child (Toxic to reproduction), Potential Endocrine Disruptor, Toxic in contact with skin, Danger of skin sensitization, Causes skin irritation, Causes serious eye damage, Acutely toxic to aquatic life, Very ecotoxic in the soil environment, Highly flammable liquid and vapour, Causes damage to organs (Specific target organs/systemic toxicity following single exposure), Toxic to aquatic life with long lasting effects
Oleum (Fuming Sulfuric acid mixture with sulfur trioxide) 8014-95-7	7,000,000	
Flammable Mixture, including: Propane 74-98-6; Propylene 115-07-1	6,700,000	Propane: Persistent in the environment, Extremely flammable gas. Propylene: Potential Endocrine Disruptor, Extremely flammable gas
Hydrocyanic acid 7490-8	230,000	Reproductive Toxicity, Acute Mammalian Toxicity (fatal if inhaled), Chronic cardiovascular, renal and musculoskeletal effects after single exposure, Neurotoxicity-Single Exposure, Causes serious eye damage/eye irritation, Very toxic to aquatic life with long-lasting effects, Persistent, Extremely flammable liquid and vapour, Causes damage to organs through prolonged or repeated exposure/ specific target organs/systemic toxicity following repeated exposure
Sulfur dioxide (anhydrous) 7446-09-5	7,900	Developmental toxicity, Potential Endocrine Disruptor, Toxic if inhaled (Acute toxicity), Respiratory sensitizers, Causes severe skin burns and eye damage. Persistent in the environment.
Total	88,817,900	

Management Plan According to Cornerstone's latest available RMP, this facility has on-site, at any given time, the chemicals and quantities in the table below:

CF INDUSTRIES

KEY LESSONS: High-risk chemical facilities are not voluntarily reducing or eliminating hazards, or voluntarily implementing independent expert recommendations to address climate-connected natural disasters and prevent incidents.

SUMMARY OF IDA-RELATED INCIDENTS AT THIS FACILITY

At any given time, CF Industries' facility in Donaldsonville, Louisiana, may contain as much as 328 million pounds of anhydrous ammonia.

On August 29, 2021, the National Response Center (NRC) [received reports](#) of anhydrous ammonia releases from up to four storage tanks at the CF Industries fertilizer factory. At 7:31 p.m., Aug. 29, a caller reported, "that the pilots on the flares of two storage tanks were extinguished by the conditions of Hurricane Ida on the North and South Complex #1. The control valves are partially open, which resulted in the release of anhydrous ammonia into the atmosphere. Conditions from Hurricane Ida are ongoing and a crew is unable to secure the release."

At 8:04 p.m., Aug. 29, a caller reported, "that the pilots on the flares of two storage tanks, D901 (Ammonia #5 area)/TK806(Complex #2 area) were extinguished by the conditions of Hurricane Ida and the control valves are partially open, which resulted in the

release of anhydrous ammonia into the atmosphere. Due to continued conditions from Hurricane Ida, crew is unable to secure the release.

KEY FINDINGS OF THIS INCIDENT

Worst case scenarios from the most recent RMP for this facility assume low wind speeds. However, wind gusts [exceeded 62 mph](#) during the passage of Hurricane Ida. While the worstcase release scenario for a toxic gas release may be slow moving air conditions, other dangerous release scenarios might be made worse by high winds.¹⁹ And the extremely high winds, storm surges, and flooding experienced during hurricanes (or severe conditions experienced during other natural disasters like wildfires) are not considered in most Risk Management Plans or addressed in most prevention plans. Climate change hazards and potential impacts, such as larger or more frequent storms, are not currently being reflected in this company's RMP.

By the time the EPA did an assessment on August 31, there was still no power at the facility. Reliable backup systems would have been required if climate change potential impacts had been considered, as we recommend.

According to the company's latest available RMP, this facility has on-site, at any given time, as much as 328,223,043 pounds of anhydrous ammonia. According to the [previous RMP](#) the company submitted, the amount of anhydrous ammonia was 330,000,000 pounds, which represents only a 1% decrease for this

chemical.

This facility has had one previous release subject to EPA 40 CFR Part 68 on February 24, 2021. The incident involved 4,375 pounds of ammonia and 907 pounds of flammable gas. Reduction and removal of hazards is needed to actually prevent hazardous releases like the one that happened at CF Industries in late August 2021. Reducing storage or changing to safer chemicals or technologies would avoid the current threat posed by the ammonia present in the facility.

As declared in the previous RMP, this facility used to store 100,000 pounds of chlorine that are not in the newest RMP, which suggests that chlorine amounts have been reduced below the threshold that mandates reporting or have otherwise been substituted or eliminated. If facilities adopt safer methods or technologies, documenting and communicating these changes could help others to reduce the hazards. Also, EPA should consider whether chemical threshold amounts need to be lowered, and whether the presence of one RMP chemical at the facility should trigger reporting of all RMP chemicals present regardless of amount.

There are approximately 10,314 people living in a 5 km radius of this plant, 72% of which are people of color.²⁰ [EPA's EJScreen tool](#) measures environmental injustice in many ways and uses a five-kilometer radius (3.1 miles) around a facility as the standard. EPA ranks the community cancer risk from air toxics in the highest possible percentile range

(95% to 100%). The [per capita income](#) is \$21,754. This is less than half (44%) the per capita income (\$49,260) of the wider metropolitan area in 2019. A new RMP policy should address disproportionate impacts on communities such as those that live around Donaldsonville.



In red, the CF Industries facility. Blue circles show other facilities in the region that are subject to RMPs as per 2014 data.

safety inspections to prevent chemical incidents that pose a threat to people and the environment.

As shown in the 2014 map above, the CF Industries plant in Donaldsonville and the nearby community are situated in an area with other RMP facilities that also store and use hazardous chemicals. This represents an unpredictable threat to workers, the community and the environment, particularly when extreme weather events simultaneously hit the chemical facilities in the area. A new RMP policy should also address cumulative hazards posed by several RMP facilities in the same area.

Incidents reported following previous hurricanes and floods have shown that chemical plants are failing to prevent hazardous releases and incidents with the current regulations. After Hurricane Harvey, [the U.S. Chemical Safety and Hazard Investigation Board \(CSB\) called for more robust industry guidance](#) to help hazardous chemical facilities better prepare for extreme weather events. Some of those recommendations are listed below and could have helped prevent the incidents provoked by Hurricane Ida.

According to this facility's most recent RMP, the last safety inspection had been made 02/03/2020. New risk management policies meant to strengthen emergency responses and incident management requirements, and prevent incidents, may lead to an increase in the frequency of

"Develop broad and comprehensive guidance to help companies assess their U.S. facility risk from all types of potential extreme weather events...Include guidance for each of the following:

- Addressing common mode failures of critical safeguards or equipment that could be caused by extreme weather events, including but not limited to flooding. For flooding scenarios, sufficient independent layers of protection should be available if flood water heights reach the facility.
- Evaluating facility susceptibility to potential extreme weather events. Relevant safety information such as flood maps should be incorporated as process safety information.
- Involving relevant professional disciplines, including engineering disciplines, to help ensure risk assessments and process hazard analyses are as robust as practicable for any given facility.”

In the same report based on the experience of Hurricane Harvey, CSB also recommends: “Facilities should perform an analysis to determine their susceptibility to extreme weather events. Companies should compile key safety information such as flood maps within their process safety information programs. This important safety information should be evaluated to determine whether any portions of their facilities are located within the 100- year or 500-year flood plain. In addition, companies should assess seismic hazard maps to determine the risk of earthquakes and consider the risk of other extreme weather such as high-wind events. Companies should evaluate risk assessments and the adequacy of relevant safeguards by

applying facility process safety management programs, such as process hazard analyses or facility siting programs. Facilities should strive to apply a sufficiently conservative risk management approach when evaluating and mitigating the potential effects of extreme weather scenarios.”

PRIOR INCIDENTS

2013: A 34-year veteran of the company died after nitrogen that was being offloaded exploded causing “horrific” damage.

COMPANY & FACILITY BACKGROUND

Address:

39018 Highway 3089
Donaldsonville, LA 70346

Geocoordinates:

Longitude: 30.086940 Latitude: -
90.957780

Plant description: This is the largest nitrogen facility in the country, according to CF Industries. Most of the nitrogen is used to manufacture fertilizer. Owner: CF Industries Holdings, Inc., headquartered in Deerfield, Illinois.

Hazardous Chemicals Use/Storage: CF Industries Risk Management Plan

According to the company’s latest available RMP, this facility has on-site, at any given time, the chemicals and quantities in the table on the following page.²¹

Chemical/ CSA	Storage (lbs)	Hazards
Ammonia (anhydrous)7664-41-7	328,223,043	Toxic if inhaled (Acute toxicity)
Flammable Mixture of Hydrogen 133374-0 and Methane 74-82-8	457,126	Hydrogen: Persistent in the environment, Very flammable gas Methane: Extremely flammable gas, Global warming potential
Flammable Mixture of Ethane 74-84-0 and Methane 74-82-8	23,189	Ethane: Extremely flammable gas Methane: Extremely flammable gas, Global warming potential
Total	328,703,358	

CONCLUSION AND RECOMMENDATIONS

Climate change-related extreme weather events, such as Ida, are [increasing the vulnerability](#) of chemical facilities nationwide.

The Gulf Coast is one of the most vulnerable regions in the country, with more than 2,500 facilities facing elevated risk from natural disasters alone.

As the communities in Louisiana attempt to recover from Ida, as they do every year from similar natural disasters, the EPA is reviewing its Risk Management Plan (RMP) rule which can help prevent these incidents from occurring in the first place. With President Biden's commitments to addressing climate change and to environmental justice, it should be a top priority for EPA to produce a strong new RMP rule that will require hazard reductions, address climate change and natural disasters, increase worker participation, and include other key measures.

The EPA does not need to invent new approaches to help prevent chemical disasters- they already exist. They have been developed over decades by workers, facility safety experts, and local and state governments. For example, the recent California refinery [Process Safety Management rule](#), the [Contra Costa County \(CA\) Industrial Safety ordinance](#), and other robust prevention policies have already been implemented.

Workers and frontline communities are unwilling to continue living with the constant threat of chemical disasters that could destroy businesses and communities, when safer chemicals and technologies exist. Injuries, death and disease are not acceptable risks, and communities are not sacrifice zones. The lives and health of those at risk should be the first - not the last - consideration when developing the new RMP rule.

We are calling on the EPA to make sure that the updated RMP will help prevent chemical disasters, and protect workers, communities, and businesses, by reducing and eliminating hazards. A new, stronger RMP rule must, among other improvements:

- **Ensure prevention of chemical disasters by eliminating or reducing hazards.** Many safer chemicals and processes already exist, and more can be developed. What is missing, but urgently needed, are national requirements for transition to safer alternatives whenever possible, and other proven measures like incident root cause analyses, independent third-party safety audits, and collecting and sharing hazard reduction opportunities.
- **Proactively address climate hazards and impacts.** Expand RMP coverage to more facilities in areas prone to natural disasters. Require safer shutdown and startup procedures. Collect and publicly share air emissions data in real time. Require reliable backup power.

Require that communities receive timely information about natural disaster response plans and incidents in ways that are clearly communicated to those at risk.

- **Strengthen emergency response and incident management requirements.**

Backup power, alerts in multiple languages (including advance community notification), real-time fence-line air monitoring, leak detection and repair, emergency response exercises, and similar best practices should not be optional.

- **Increase enforceability, corrective action, and accountability.**

Incorporate RMP requirements into Clean Air Act Title V permits to improve compliance and enforceability. Require meaningful worker involvement in all incident response and prevention planning systems, and implement stop work authority (including an anonymous safety and near-miss hotline). Clear, expeditious implementation and compliance deadlines are essential.

- **Expand coverage of the RMP program.** The current scope of the RMP program is inadequate for the dangers posed by these facilities,

especially in light of increasing climate-related impacts. More facilities, processes and chemicals (including ammonium nitrate and other reactives) must be covered. One process or part of a facility should trigger coverage for the whole facility.

- **Address the cumulative hazards and disproportionate impacts in many communities, and ensure environmental justice.** RMP facilities

are frequently located in close proximity to each other, as well as additional facilities that continuously release multiple pollutants. Often, the communities neighboring these facilities - disproportionately made up of people of color and low income people - are faced with a host of other social and environmental conditions that increase their susceptibility to health threats. Human bodies don't experience one health threat at a time, they overlap and accumulate. When chemical disasters occur, these health hazards can be even more extreme. The EPA must ensure more layers of prevention in communities where cumulative hazards and disproportionate impacts exist, due to the the proximity of multiple RMP and other polluting facilities.

ENDNOTES:

1. Hurricane Ida Report #20 – FINAL September 24, 2021: <https://response.epa.gov/sites/15323/files/Hurricane%20Ida%20Report%202020.pdf>
2. Life at the Fence-line: Understanding Cumulative Health Hazards in Environmental Justice Communities: <https://ej4all.org/life-at-the-fence-line>
3. National Response Center. "2021 Incidents." (Spreadsheet, incidents through September 19, 2021.) <https://nrc.uscg.mil/> Downloaded September 24, 2021. Incident report number 1314961.

4. National Response Center. "2021 Incidents." (Spreadsheet, incidents through September 19, 2021.) <https://nrc.uscg.mil/> Downloaded September 24, 2021. Incident report number 1315456.
5. Environmental Protection Agency Emergency Response. "Hurricane Ida. Shell Chemical LP - Norco Chemical Plant - East Site Facility Report." September 1, 2021. LDEQ-EDMS Document No. 12881055.
6. National Response Center. "2021 Incidents." (Spreadsheet, incidents through September 19, 2021.) <https://nrc.uscg.mil/> Downloaded September 24, 2021. Incident report number 1316967.
7. In its "Risk Management Program Guidance for Offsite Consequence Analysis," EPA notes that while the required assumptions about weather and other conditions in potential release scenarios are expected to usually estimate the worst-case release, "In certain cases, actual conditions could be even more severe than these worst-case assumptions (e.g., very high process temperature, high process pressure, or unusual weather conditions, such as temperature inversions); in such cases, your results might underestimate the effects
8. Area defined as 5 kilometers Ring Centered at 29.994340,-90.407181, LOUISIANA, EPA Region 6 using <https://ejsscreen.epa.gov/mapper/>
9. Area defined as 5 kilometers Ring Centered at 29.994340,-90.407181, LOUISIANA, EPA Region 6 (Population: 28,861) using <https://ejsscreen.epa.gov/mapper/>
10. The facility's publicly-available RMP summary does not list flooding, high winds, or storms among the "hazards identified."
11. U.S. Chemical Safety and Hazard Investigation Board, Arkema Inc. Final Investigation Report: <http://www.csb.gov/file.aspx?DocumentId=6063>
12. Chemicals on-site: Risk Management Plan; Chemical hazards: [Pharos Project](#).
13. Environmental Protection Agency Emergency Response. "Hurricane Ida. Shell Chemical LP - Norco Chemical Plant - East Site Facility Report." September 1, 2021. LDEQ-EDMS Document No. 12881055
14. National Response Center. "2021 Incidents." (Spreadsheet, incidents through September 19, 2021.) <https://nrc.uscg.mil/> Downloaded September 24, 2021. Incident report numbers 1315003 and 1315119.
15. Environmental Protection Agency Emergency Response. "Hurricane Ida. Cornerstone Chemical Company Facility Report." September 2, 2021. LDEQ-EDMS Document No. 12878637.
16. See endnote 7.
17. Area defined as 5 kilometers Ring Centered at 29.958880,-90.270472, LOUISIANA, EPA Region 6 (Population: 28,861).
18. While the Cornerstone facility's publicly-available RMP summary lists a variety of specific "hazards identified," it only lists "hurricanes" generally, and not specific likely hazards such as flooding, extremely high winds, or extended power outage.
19. See endnote 7.
20. Area defined as 5 kilometers Ring Centered at 30.100695,-90.992911, LOUISIANA, EPA Region 6,
21. CF Industries RMP, RMP Review, Version 4.3. US Department of Environmental Protection, Chemical Emergency Preparedness and Prevention Office. Software refreshed June 30, 2021. See also the [Pharos Project](#).



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November 12, 2021

Office of Planning, Analysis, and Accountability
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Re: Comments in response to EPA’s Draft Strategic Plan 2022-26 – Docket Number: EPA-HQ-OA2021-0403

Introduction

Friends of the Earth U.S. (FOE), on behalf of our more than 3 million members and supporters in the United States, welcomes this opportunity to provide comments in response to EPA’s Draft Strategic Plan 2022-26. We commend Administrator Regan’s commitment to 1) follow the science, 2) follow the law, 3) be transparent, and 4) advance justice and equity as the basis of the Agency’s culture and approach to its operations and decision-making. FOE also supports EPA’s plan to implement these principles throughout five programs: enforcement and compliance, air quality, water quality, land revitalization, and chemical safety. Our comments highlight how EPA’s strategic plan falls short of its own goals and stated commitments. Specifically, we are concerned by the near omission of planned regulatory action and enhanced enforcement around Confined Animal Feeding Operations (CAFOs, also known as factory farms)¹ and by the omission of regulatory action to update EPA’s Pesticide Program’s regulations and standards so as to address novel biopesticides and to update the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) in the draft strategic plan.

We will contextualize our concerns with respect to the goals and objectives in the draft strategic plan in detail below, but here is a summary of our key recommendations to address these glaring omissions:

1. The plan must include and prioritize effective mitigation of the human and environmental health impacts of CAFOs and slaughterhouses. Aside from a brief mention of the agency’s intention to regulate PFAS from poultry and meat processing plants, strengthening enforcement of existing laws like the Clean Water Act, or adopting new regulations on CAFOs and slaughterhouses, are absent from the plan. Failure to exercise the agency’s full authority to protect public health and the environment by regulating CAFOs and slaughterhouses runs contrary to every single one of EPA’s seven goals described in its draft Strategic Plan. Moreover, the failure to effectively regulate methane and other toxic air and water pollutants generated by factory farms undermines the agency’s stated commitment to science as well as to justice and equity principles. There is ample science – including the EPA’s own research – that demonstrates the major role industrial animal agriculture plays in contributing to climate change, water pollution, air pollution, and adverse

impacts to public health. These effects are felt most acutely by the rural communities – which are disproportionately low-wealth communities and communities of color, living near factory farms. If the EPA is serious about following the science, achieving its climate change and clean air and water goals, and implementing EJ principles throughout its programs, it must include regulation and strengthened enforcement of CAFO emissions and discharges in its strategic plan.

2. The plan must include an update of the Pesticide Program’s regulations, processes and assessments in order for the EPA to effectively use a science-based and precautionary approach that protects public health and the environment. The EPA strategic plan should update its language to specifically address novel biopesticides like genetically engineered insects and RNA interference (RNAi) sprays. Currently, both RNAi sprays and GE insects are being released into the environment ahead of responsible and transparent standards or processes capable of addressing novel risks. In addition, the EPA’s strategic plan should address the need to update the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) so as to keep pace with the most up-to-date science and technology assessments. EPA must also close loopholes which allow the pesticide industry to continue the use of pesticides that are known toxins and which disproportionately impact farmworker and rural communities. Lastly, the EPA’s strategic plan should address the outdated processes and standards of the Office of Pesticide Programs so as to effectively address biodiversity loss, climate change, and public health crises.

Please consider the aforementioned comments as EPA solidifies its four-year strategic plan in addition to our responses to EPA’s specific goals below. Please note that our responses are limited in scope with a focus on the EPA’s role in regulating aspects of our food system. Regarding environmental justice and disadvantaged communities, we hope EPA will look to BIPOC-led organizations and communities for additional recommendations to better integrate and prioritize equity and justice.

I. Goal 1: Tackle the Climate Crisis

a. Objective 1.1: Reduce Emissions that Cause Climate Change

One of EPA’s primary objectives is to reduce emissions that cause climate change, yet its strategic plan fails to follow the science by tackling the number one source of methane emissions in the United States according to its own data: animal agriculture. EPA should list and regulate industrial dairy and hog operations under section 111 of the Clean Air Act,² because these operations cause and contribute significantly to air and climate pollution that endangers public health and welfare.

Methane Emissions: While carbon dioxide is often considered the primary greenhouse gas of concern, methane presents a crucial opportunity in the climate fight given that it is 80 times as potent as carbon dioxide over a 20-year period, and reducing its production will have immediate climate benefits.³ Overall, EPA estimates that 27 percent of U.S. methane emissions come from enteric fermentation and 9 percent come from manure management, totaling to 36 percent of methane emissions attributable to agriculture, which is greater than the 30 percent of methane emissions from natural gas and petroleum.⁴ EPA acknowledges its ability to drive significant emissions reductions to mitigate climate change due to “its regulatory authority, technical and programmatic expertise, and mission to protect human health and the environment.”⁵ If the EPA is serious about its commitment to cut emissions by exercising its authorities to regulate GHG pollutants across key sectors,⁶ it must include regulating CAFOs as a key sector in its strategic

plan.

Climate Change and EJ Principles: Climate change disproportionately affects communities of color, low-income communities, and other vulnerable populations, because these communities are more likely to live in isolated rural areas, floodplains, coastlines, and other at-risk locations, making them at risk of exposure to adverse climate change impacts.⁷ These communities are also more likely to have inadequate access to healthcare.⁸ EPA notes that climate change exacerbates existing pollution problems and environmental stressors impacting the land, air, water, and the people who depend on them.⁹ Given that these communities also have disproportionately high rates of pollution and other socioeconomic stressors, they are especially vulnerable. For example, Black and Latino communities have higher rates of underlying health condition, which increases their sensitivity to heat waves, foodborne illnesses, infectious diseases, air pollution, and other climate change impacts.¹⁰ Further, for low-income populations in rural farming communities, drought and other climate-related impacts threaten to worsen existing vulnerabilities, such as water scarcity, unemployment, and food insecurity.¹¹

Industrial dairy and hog operations adversely impact local communities by confining large numbers of animals in specialized production facilities, resulting in massive amounts of manure, odor, dust, and harmful air pollutants in these communities.¹² These emissions degrade local air quality and threaten the health and well-being of local residents.

EPA has promulgated standards of performance for pollutants from new and modified facilities in dozens of industries¹³ including non-methane organic compound emissions from municipal solid waste landfills;¹⁴ particulate matter from grain elevators;¹⁵ particulate matter from glass manufacturing plants;¹⁶ particulate matter, nitrogen oxide, and sulfur dioxide from cement plants;¹⁷ and volatile organic compounds from rubber tire manufacturing plants, to name a few.¹⁸ There is no reasonable explanation for EPA refusing to regulate methane from industrial dairy and hog operations.

EPA should:

1. List and regulate methane emissions from industrial dairy and hog operations under section 111 of the Clean Air Act,¹⁹ because these operations cause and contribute significantly to air and climate pollution that endangers public health and welfare.
2. Implement direct monitoring and oversight activities for CAFOs for noncompliant emissions of greenhouse gases and other compounds that contribute to or exacerbate climate change.

b. Objective 1.2: Accelerate Resilience and Adaptation to Climate Change Impacts

Not only do CAFO's lack resiliency in the face of extreme weather, they present a major public health and environmental hazard – and an elevated hazard in the face of increasing extreme weather events – because of the amount of waste they produce.²⁰ These operations, which typically use liquefied manure management systems to collect and store massive amounts of manure from production facilities,²¹ are prone to breakage and spillage as more intense hurricanes and storm events increase in frequency.²² When there is an infrastructure failure or heavy rain storm, manure lagoons can spill decades' worth of accumulated waste onto local properties, causing crop destruction, soil degradation, water contamination, and other adverse impacts.²³ Manure spills can also spread disease among livestock²⁴ and reduce crop yields, quality, and revenue on nearby farms.²⁵ These public health hazards from extreme weather events are an environmental justice concern since communities of color are disproportionately exposed to the harmful pathogens,

contaminated drinking water, and antibiotic-resistance bacteria associated with CAFOs.

In the most recent inventory of U.S. GHG emissions, EPA noted that the “manure management systems with the most substantial methane emissions are those associated with confined animal management operations[,] where manure is handled in liquid-based systems.”²⁶ While CAFOs are required to have permits that limit the levels of manure discharge,²⁷ handling the large amounts of manure inevitably causes accidental releases which have the ability to potentially impact humans.²⁸ Further, it has been found that states with high concentrations of CAFOs experience on average 20 to 30 serious water quality problems per year as a result of manure management problems.²⁹

The EPA should:

1. Prohibit the installation of new liquid manure handling systems, including waste lagoons, and phase out their use on existing operations in order to reduce the risk of public health and environmental disasters.
2. Support research for sustainable alternatives to waste lagoons that are not vulnerable to breaches and that protect local communities and resources from contamination.
3. Require CAFOs to certify no less often than annually that their application of manure does not exceed the levels specified by regulators and to prove that excess manure was safely stored or safely diverted off-site.³⁰

II. Goal 2: Take Decisive Action to Advance Environmental Justice and Civil Rights

We commend EPA for including environmental justice (EJ) and civil rights principles in its draft plans. However, FOE is concerned by EPA’s failure to prioritize regulation of emissions and discharges from CAFOs, which disproportionately impact low-wealth communities as well as communities of color.³¹

EPA claims that the ultimate goal of centering its mission on EJ and civil rights principles is “to achieve measurable environmental, public health, and quality of life improvements in the most overburdened, vulnerable, and underserved communities.” However, EPA has failed to address the rural communities, often low-wealth and communities of color, that are overburdened by, and vulnerable to, CAFO pollution. Swine CAFOs are disproportionately located in communities of color and regions of poverty.³² And, research has shown a disproportionately high concentration of CAFOs in communities of color despite the declining number of black farmers in the southeastern United States.³³

Human health can suffer because of contaminated air and degraded water quality or from diseases spread from farms. Quality of life can suffer because of odors surrounding farms.³⁴ While all community members are at risk from lowered air quality, children take in more air than adults proportional to their body weight — up to 20 to 50 percent more during physical activity — making them more susceptible to lung disease and health effects.³⁵ Researchers in North Carolina found that the closer children live to a CAFO, the greater the risk of asthma symptoms.³⁶ The same study found that schools that were closer to CAFOs were often attended by students of lower socioeconomic status.³⁷

EPA acknowledges that overburdened and underserved communities and individuals are particularly vulnerable to the impacts of climate change, including low-income communities and communities of color, children, the elderly, Tribes, and Indigenous people.³⁸ Sadly, these same communities continue to

disproportionately suffer from toxic pollution discharged and emitted from industrial livestock operations. To remedy this injustice, EPA must include and incorporate feedback from impacted communities while analyzing and addressing disproportionate impacts.³⁹ However, listening to stakeholders is not enough. EPA must also act on its findings and to the available science use to its regulatory authority to strengthen protections and enforcement so that it can mitigate the harm caused by industrial animal operations.

EPA cannot genuinely tout a new commitment to environmental justice and equity principles while it continues to ignore the environmental and public health injustices rural communities suffer from CAFOs operating with little regulatory oversight.

EPA should:

1. Consult with impacted communities and incorporate their feedback to inform its monitoring of emissions and discharges from CAFOs.
2. Consider the disproportionate impacts of CAFO pollution on surrounding communities, in its permitting and enforcement actions.

III. Goal 3: Enforce Environmental Laws and Ensure Compliance

The EPA's failure to enforce key environmental laws with respect to CAFO air pollution disproportionately harms communities of color while shielding polluting industries from EPA enforcement actions. Three laws potentially govern CAFO air emissions: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Emergency Planning & Community Right to Know Act (EPCRA); and the Clean Air Act (CAA).⁴⁰ However, the FARM Act—passed during the Trump Administration— exempts all CAFOs from reporting emissions under CERCLA, the repeal of which would have to be prompted by a statutory change. Only CAFOs that are classified as large are required to report any emission event of 100 pounds of ammonia or hydrogen sulfide or more during a 24-hour period locally or to the state under EPCRA⁴¹

Over 16 years ago, EPA announced a final rule whereby EPA agreed to refrain from enforcing two critical air pollution control and public disclosure laws, the Emergency Planning and Community Right to Know Act (EPCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),⁴² with respect to any animal feeding operation (AFO) that agreed to pay a nominal penalty to fund a nationwide air monitoring program to establish Emission Estimating Methodologies (EEMs) for AFOs.⁴³ By its own terms, this deal should have ended in 2010.⁴⁴ Yet, EPA has yet to finalize any EEMs or end the Air Consent Agreement and thousands of the nation's largest AFOs continue to enjoy amnesty from EPA enforcement actions, even if their emissions exceed permit limits or reporting thresholds. In order for EPA to reduce racial and ethnic disparities in levels of air pollutants and exposure to toxins and “in access to clean and reliable water” as proposed in the draft plan,⁴⁵ EPA must end the Air Compliance Agreement which effectively shields animal feeding operations from EPA enforcement actions.

By neglecting to enforce these bedrock environmental laws against CAFOs, EPA has yielded to influence from the livestock industry at the expense of public health.

EPA should:

1. Terminate the Air Compliance Agreement and enforce reporting requirement under EPCRA against

animal feeding operations.

IV. Goal 4: Ensure Clean and Healthy Air for All Communities

a. Objective 4.1: Improve Air Quality and Reduce Localized Pollution and Health Impacts

Industrial farms degrade air quality in surrounding areas.⁴⁶ The primary cause of gaseous emissions is the decomposition of animal manure, while particulate substances are caused by the movement of animals.⁴⁷ The most typical pollutants found in air surrounding CAFOs are ammonia, hydrogen sulfide, methane, and particulate matter, all of which have varying human health risks.⁴⁸

CAFOs emit particulate matter and suspended dust, which is linked to asthma and bronchitis.⁴⁹ Smaller particles can be absorbed by the body and can have systemic effects, including cardiovascular disease and cancers.⁵⁰ If people are exposed to particulate matter over a long time, it can lead to decreased lung function.⁵¹ CAFOs also emit ammonia, which is rapidly absorbed by the upper airways in the body, causing severe coughing and mucous build-up, and in severe cases, scarring of the airways.⁵²

These air quality impacts can be mitigated by several of the regulatory and enforcement actions suggested in previous sections, including stepping up enforcement of the Clean Air Act with respect to CAFOs.

EPA should:

1. Repeal the regulations promulgated by EPA Administrator Wheeler under EPCRA to create a reporting exemption for air emissions from farm animal waste and enact a new rule strengthening reporting requirements (to include measures such as requiring more frequent reporting under EPCRA's 'continuous release' reporting provisions and increasing the number of inspectors to prioritize efforts).⁵³
2. Finalize EEMs using all available peer-reviewed data, require AFOs to seek CAA permits if they emit above threshold amounts of pollutants according to the EEMs.⁵⁴

V. Goal 5: Ensure Clean and Safe Water for All Communities

Failure to enforce the Clean Water Act as it pertains to CAFOs has significantly undermined the EPA's ability to ensure clean and safe water for all communities. The EPA's lack of oversight and sufficient staff and resources dedicated to CAFO regulation has led to inconsistent implementation of the Clean Water Act by some states as it pertains to CAFOs.⁵⁵

CAFOs are a leading contributor of pollutants in lakes, rivers, and reservoirs.⁵⁶ These pollutants include nutrients such as nitrogen and phosphorus, as well as bacteria, organic matter, solids, salts, trace elements, and pharmaceuticals.⁵⁷ Moreover, public exposure to waterborne contaminants, such as fecal bacteria or pathogens, can result from both recreational use of affected surface water and from ingestion of drinking water derived from either contaminated surface water or groundwater.⁵⁸ One study showed that protozoa such as *Cryptosporidium parvum* and *Giardia* were found in over 80% of surface water sites tested.⁵⁹ Fecal bacteria pollution in water from manure land application is also responsible for many beach closures and shellfish restrictions.⁶⁰

CAFOs can degrade groundwater quality in surrounding communities.⁶¹ The 34.2 million Americans who depend on private wells for drinking water are particularly at risk.⁶² The phosphorus in manure can also affect lake and stream water quality by causing weed and algae growth. Groundwater can be contaminated by CAFOs through runoff from land application of manure, leaching from manure that has been improperly spread on land, or through leaks or breaks in storage or containment units.⁶³ When groundwater is contaminated by pathogenic organisms, a serious threat to drinking water can occur. One pollution event by a CAFO could become a lingering source of viral contamination for groundwater.⁶⁴ If a CAFO has contaminated a water system, community members should be concerned about nitrates and nitrate poisoning. Elevated nitrates in drinking water can be especially harmful to infants, leading to blue baby syndrome and possible death.⁶⁵ Low blood oxygen in adults can lead to birth defects, miscarriages, and poor general health.⁶⁶ Nitrates have also been speculated to be linked to higher rates of stomach and esophageal cancer.⁶⁷

The EPA's 2000 National Water Quality Inventory found that 29 states specifically identified animal feeding operations, not just CAFOs, as contributing to water quality impairment.⁶⁸ We commend EPA on its plan to update the national water pollution standards for meat and poultry processing plants for the first time since 2004. This is a significant step in the right direction in protecting our waterways from discharged nutrients that contribute to algae blooms, kill off aquatic life, and imperil public health. Given that 74 percent of these facilities discharge pollution into waterways within 1 mile of a disadvantaged community⁶⁹, we urge EPA to act with haste in establishing an action plan and effective enforcement that is informed by science as well as input from individuals from impacted communities.

EPA should:

1. Enforce the CWA as it pertains to CAFOs by requiring more stringent permitting requirements.
2. Increase the number of inspection and enforcement staff, which would allow more frequent inspection of CAFO facilities and stricter monitoring of NPDES permits, records, and reports.
3. Utilize stricter oversight of state programs to ensure that they conform to federal requirements.⁷⁰
4. Ensure swift action on updates to national water pollution standards on meat and poultry processing plants.

VI. Goal 6: Safeguard and Revitalize Communities

In addition to polluting the air and water with harmful manure management systems, CAFOs are sources of odors and pathogens that harm rural communities and impact the quality of life of those unfortunate enough to live near them. Yet, there are currently no federal regulations to protect communities from these nuisances. In fact, some states have adopted legislation that exempts CAFOs from zoning regulations, and "Right to farm" statutes seek to limit the circumstances under which agricultural operations can be deemed nuisances.⁷¹ EPA has the authority to develop zoning guidelines that apply to most CAFOs⁷² to set a framework for state regulation and provide additional public health protection for communities living near these facilities.⁷³

Odor and associate impacts: Intolerable odors are among the most common complaints associated with industrial animal operations.⁷⁴ These odors can cause lifestyle disruptions for individuals in the surrounding communities and can alter many daily activities.⁷⁵ When odors are severe, people may choose to keep their windows closed despite high temperatures when there is no air conditioning.⁷⁶ People might stop their

children from playing outside or keep them home from school.⁷⁷ Mental health deterioration and an increased sensitization to smells is also associated with living in close proximity to odors from CAFOs.⁷⁸ Odor can cause negative mood states, such as tension, depression, or anger.⁷⁹ People who live close to factory farms can develop CAFO-related post-traumatic stress disorder, including anxiety about declining quality of life.⁸⁰ These odors are far worse than smells associated with smaller livestock farms, as the anaerobic reaction that occurs when manure is stored in pits or lagoons for long amounts of time is the primary cause of the smells. Depending on things like weather conditions and farming techniques, CAFO odors can be smelled from as much far as 5 or 6 miles away.⁸¹

Disease and at-risk groups: There are over 150 pathogens in manure that could impact human health.⁸² Healthy people who are exposed to pathogens can generally recover quickly, but those who have weaker immune systems, such as infants or young children, pregnant women, the elderly, and those who are immunosuppressed, are at increased risk for severe illness or death.⁸³ This risk group roughly compromises 20% of the U.S. population.⁸⁴

All Americans deserve clean air and water, a stable climate, and to live in healthy and sustainable communities. EPA cannot continue to ignore the harmful impact industrial animal operations have on the health and wellbeing of these communities.

EPA Should

1. Develop federal zoning guidelines for CAFOs to provide additional protection for individuals living near these operations.

VII. Goal 7: Ensure Safety of Chemicals for People and the Environment

The EPA strategic plan should include a commitment to update pesticide regulations to 1) address specific concerns related to novel biopesticides, including RNAi sprays and genetically engineered (GE) insects, 2) update the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) per the recommendations below, and 3) update the standards and processes of the Office of Pesticide Programs (OPP) to address public health, biodiversity decline, and the climate crisis.

1) Addressing novel biopesticides

Currently, pesticide regulations do not include language or requirements for assessments specific to novel biopesticides in the form of genetically engineered insects or ‘gene-silencing’ RNAi pesticides. EPA regulations of novel technologies should be guided by the Precautionary Principle, meaning that precautionary measures to minimize or avoid threats to human health or the environment should be taken based on the weight of the available scientific evidence rather than waiting for full scientific certainty about cause and effect, which can take years or decades.

GE insects, including the GE mosquito, which has already been released into the environment via experimental field trials, should be governed by science-based precautionary regulations and guidelines.

EPA’s strategic plan should include updating pesticide regulations to require the following:

1. Conduct a full environmental impact assessment prior to any approval of GE insects for environmental release.

2. Establish a committee of relevant independent experts and stakeholders (for example, ecologists, entomologists, and public health experts such as vector-borne disease specialists) to review proposals and consider the potential environmental, health and social impacts of the release of GE insects;
3. Require companies to obtain free and informed consent of all potentially affected communities in states where releases of GE insects are proposed before any trial is allowed to move forward and create mechanisms to halt the experiment if the community does not consent;
4. Establish genetic monitoring programs prior to field releases of GE insects to detect any unintended consequences.

The available data related to **gene silencing RNAi pesticides** raise concerns about potential environmental, health and social impacts.⁸⁵ Pesticide regulations should be updated to include the following:

1. RNAi pesticides should be regulated as a form of genetic engineering, as they can result in genetic changes in exposed organisms as well as altered traits that can be passed down to offspring.
2. Oversight should include independent public health and environmental risk assessments, including examination of potential long-term impacts before products are released onto the market or into the environment.
3. Decisions about RNAi pesticides and use of genetic engineering in agriculture should also incorporate a deliberative public processes alongside scientific evaluation.

2) Updating the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)

FIFRA has not kept pace with the latest science on pesticides and contains many loopholes that industries have exploited⁸⁶ for decades to keep dangerous products in use. The following changes must be made to safeguard the health and safety of people and our environment:

1. Protection for farmworkers by requiring employers to report all pesticide-related injuries to the EPA and establishing strict penalties for reporting failures, concealing information, or retaliating against workers. Provide full information on pesticide ingredients and handling practices in Spanish and other languages spoken by more than 500 farmworkers;
2. Phase out some of the most damaging pesticides known to be harmful to human health and the environment, including organophosphate insecticides, neonicotinoid insecticides, and paraquat;
3. Suspend the use of pesticides deemed to be harmful by the European Union and Canada until they have been thoroughly reviewed by the agency;
4. Require “inert” ingredients to be listed on pesticide products;
5. Close loopholes that allow the EPA to issue emergency exemptions and conditional registrations to use pesticides before they have gone through health and safety review;
6. Enable local communities to enact protective policies without being vetoed or preempted by state or federal law.

3) Update the standards and processes of the Office of Pesticide Programs (OPP)

In a letter to President Biden concerning the OPP,⁸⁷ 37 organizations including Friends of the Earth state the following:

In recent decades, the Office of Pesticide Programs (OPP) has made a series of crucial regulatory mistakes that have caused disabilities⁸⁸ and illnesses⁸⁹; caused disproportionate harm to people of color; destroyed

beekeeper livelihoods; largely eliminated⁹⁰ the iconic monarch butterfly; decimated bird and invertebrate populations; killed or sickened people's beloved dogs and cats; contributed to the climate crisis; and otherwise harmed the welfare of this country.

EPA and the administration have the ability under existing law to steer the nation away from toxic chemical dependency with a clear strategy to address the existential crises associated with public health decline, biodiversity decline, and the climate crisis. An urgent need exists for OPP to re-think its application of current standards in law to meet the crises of the day. To do this, the agency must embrace a series of underlying principles to guide its decisions into the future, some of which include:

1. Utilize unreasonable risk. We urge OPP to use its powers under the “unreasonable adverse effects” standard of FIFRA to be more holistic and precautionary. In conducting its risk/hazard assessment to meet its statutory duty, the agency must evaluate the complete pesticide formulation to which the public/environment is exposed, taking into account the active and inert ingredients, contaminants, and metabolites. Mixtures resulting in additive and synergistic effects must be evaluated and, where the full range of data are not available on adverse effects, reasonableness of risk should not be assumed.
2. Conduct proper alternatives analyses. A broader application of the FIFRA “unreasonable adverse effects” standard includes an assessment by the agency of the range of alternatives – non- or least-toxic practices and materials – that could be used to achieve the ultimate agricultural, landscape or building management goal.
3. Reject corrupt data. OPP should not rely on corrupt data. OPP must cancel registrations based on false data and establish a moratorium for future pesticide registrations from manufacturers found to have submitted fraudulent data—until the agency can assure the public that the science supporting pesticide registrations is not corrupt.
4. Apply the science of endocrine disruption. OPP must end its failure to meet the agency's statutory responsibility to fully protect people and wildlife from the dire consequences of exposure to endocrine-disrupting chemicals (EDCs) that affect the full functioning of organisms.
5. Engage in holistic reform. OPP should aggressively implement the Presidential Memorandum for the Heads of Executive Departments and Agencies (January 20, 2021) regarding Modernizing Regulatory Review.

Conclusion

FOE believes that the EPA can be a major part of the climate solution and commends the Agency for its new commitment to implement EJ principles throughout key program areas to ensure clean air and water for all communities. However, to achieve this goal, it is imperative that EPA revise its strategic plan to include 1) planned regulatory action and enhanced enforcement around CAFOs and 2) regulatory action to update EPA's Pesticide Program's regulations and standards.

We thank USDA and the Biden administration for this opportunity to comment and hope that we can work together to create a healthy environment for all.

¹ Herein, any reference to factory farms, includes industrial animal operations and Concentrated Animal Feeding Operations (CAFOs).

² 42 U.S.C. § 7401(b)(1).

³ IPCC, 2021: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth

Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press.

- ⁴ EPA, Overview of Greenhouse Gases, Methane. Available at <https://www.epa.gov/ghgemissions/overviewgreenhouse-gases#methane>. Available at <https://www.ipcc.ch/report/ar6/wg1/#outreach>.
- ⁵ Draft FY 2022-2026 EPA Strategic Plan (Oct. 1, 2021). Available at <https://www.epa.gov/system/files/documents/2021-10/fy-2022-2026-epa-draft-strategic-plan.pdf>
- ⁶ Id.
- ⁷ USGCRP, Impacts of Climate Change on Human Health in the United States, 249 (2016); California’s Fourth Climate Change Assessment, Climate Justice Summary Report 36-48 (2018).
- ⁸ Id.
- ⁹ EPA Strategic Plan at 7.
- ¹⁰ Public Justice Methane petition at 41-42.
- ¹¹ See, e.g., C. Greene, Broadening Understandings of Drought: The Climate Vulnerability of Farmworkers & Rural Communities in California, 89 ENVTL. SCI. & POLICY 283 (2018) ¹² Public Justice Methane petition at 17.
- ¹³ EPA, *New Source Performance Standards*, <https://www.epa.gov/stationary-sources-air-pollution/new-sourceperformance-standards> (last visited Nov. 7, 2021); 40 C.F.R. § 60.16 (prioritized major source categories)
- ¹⁴ 40 C.F.R. § 60.752.
- ¹⁵ *Id.* at § 60.302.
- ¹⁶ *Id.* at § 60.292.
- ¹⁷ *Id.* at § 60.62.
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- ¹⁹ 42 U.S.C. § 7401(b)(1).
- ²⁰ Carrie Hribar, “Understanding Concentrated Animal Feeding Operations and Their Impact on Communities”, National Association of Local Boards of Health, 2010, page 4. Available at https://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf.
- ²¹ Id.
- ²² See D. Schaffer-Smith, et al., *Repeated Hurricanes Reveal Risks & Opportunities for Social-Ecological Resilience to Flooding & Water Quality Problems*, 54 *Envtl. Sci. & Tech.* at 7194, 7199-20 (2020).
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- ³⁷ Id.
- ³⁸ EPA Strategic Plan at 7.
- ³⁹ Id at 25.
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- ⁴¹ 40 CFR 302.6.
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- ⁴⁴ EPA OIG, Improving Air Quality: Eleven Years After Agreement EPA Has not Developed Reliable Emissions Estimation Methods to Determine Whether Animal Feeding Operations Comply with Clean air Act and Other Statutes, Report No. 17-P-0396, at 5 (Sept. 19, 2017). Available at https://www.epa.gov/sites/default/files/201709/documents/epa_oig_20170919-17-p-0396.pdf.
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- ⁴⁸ Grout, L. et. Al, A Review of Potential Public Health Impacts Associated With the Global Dairy Sector (Jan. 3, 2020). Available at <https://doi.org/10.1029/2019GH000213>.
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- ⁶⁷ Ward, M.H. et. Al., Adenocarcinoma of the Stomach and Esophagus and Drinking Water and Dietary Sources of Nitrate and Nitrite (Dec. 2009). Available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2797489/>. ⁶⁸ EPA, National Water Quality Inventory 2000 Report. Available at https://www.epa.gov/sites/default/files/201509/documents/2000_national_water_quality_inventory_report_to_congress.pdf. ⁶⁹ EPA, Preliminary Effluent Guidelines Program Plan 15 (Sept. 2021). Available at <https://www.epa.gov/system/files/documents/2021-09/prepublication-preliminary-elg-plan-15.pdf>.
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Statement from Linda Reinstein at the White House Environmental Justice Advisory Council (WHEJAC) Meeting

November 17, 2021

I am Linda Reinstein, co-founder of the independent non-profit, the [Asbestos Disease Awareness Organization](#) (ADAO). For seventeen years, ADAOS has been dedicated to preventing asbestos exposure and eliminating all asbestos-caused diseases.

I'm encouraged by President Biden's Executive Order 14008, through which the White House Environmental Justice Advisory Council has been established and appreciate that President Biden is sensitive to cancer prevention and treatment.

Environmental Justice issues and crimes have impacted Americans throughout the nation for decades, including through the exposure to toxic chemicals, causing diseases, suffering, and death.

Our air, water, soil, and living spaces should be free from toxic asbestos, but they are not.

Today, I want to focus on asbestos prevention and policy to mitigate and eliminate environmental injustices.

Regardless of the color of your skin or the amount of money in your wallet, every American deserves access to educational materials about the dangers of asbestos exposure and a government that protects them from fatal and toxic chemicals.

The science is abundantly clear -- there is no safe level of exposure to asbestos.

Asbestos, a known human carcinogen, is responsible for one of the largest man-made disasters of this century. Over 15 years ago, I watched my husband, Alan, slowly and painfully die from mesothelioma, a preventable asbestos-caused cancer. Alan died with our then 13-year-old daughter and me by his side. We are not alone. Each year, over 40,000 Americans die from mesothelioma and other asbestos-caused cancers, yet imports and use continue, especially, near fence-line communities.

Between 1990-2019, [more than 1 million Americans](#) were sickened by and died from asbestos-caused diseases, including cancers of the lung, larynx, and ovaries. The most well-known and aggressive asbestos-caused cancer, mesothelioma, is difficult to diagnose, and mesothelioma patients often die a painful death just [12-14 months after diagnosis](#).

Black, Brown, Indigenous, and lower-wealth communities have disproportionately been the dumping grounds for our country's deadliest toxic chemicals and pollutants, including asbestos. People living in these communities are more likely to live in older houses that contain asbestos, attend deteriorating schools built using asbestos that have yet to be properly renovated, and work in industries with high exposure and cancer risks.

With climate change disasters increasing – so do exposures.

Asbestos Disease Awareness Organization is a registered 501(c) (3) nonprofit organization
"United for Asbestos Disease Awareness, Education, Advocacy, and Community
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7477 www.AsbestosDiseaseAwareness.org



EPA failed to ban asbestos in 1991, and contaminated roofing products, gaskets, and friction products that contain asbestos, and it can still be found in homes, schools, and workplaces, and on consumer shelves to this day.

Many corporations embrace profit over people.

The chlor-alkali industry is the primary importer and user of raw [chrysotile asbestos](#). The two main ports of entry are in New Orleans and Houston, where 65% and 67.6% of the residents are Black or Hispanic, respectively.

In 2020, Louisiana and Texas imported nearly 300 metric tons of raw chrysotile asbestos. People can be exposed to asbestos as it is moved from the port to the plant, when it is used during the chlor-alkali process, and upon disposal.

The simple fact is this: All Americans remain at risk — children playing near landfills where asbestosladen materials have been dumped, families who unknowingly live-in older houses built with asbestos, and even firefighters who put their lives on the line every day to extinguish fires in millions of homes and buildings across the U.S. that still contain asbestos. Even with all this knowledge, EPA still hasn't banned it.

These are the areas of the unseen and unheard, where bodies are riddled with chronic medical conditions such as cancers, liver, kidney, heart, and lung diseases, while also being the most medically underserved. And still, asbestos has not been banned.

It is estimated that 1.3 million U.S. workers [are at risk of asbestos exposure](#).

The chlor-alkali process generates considerable amounts of waste, which is managed on site or at disposal facilities, and manufacturing plants and disposal facilities are also frequently located near lowincome communities with many people of color. According to the 2019 Toxics Release Inventory (TRI) data, 38 facilities released an estimated 5,500 metric tons of asbestos. In Louisiana alone, nearly 350 metric tons of asbestos were released, putting the surrounding community at high-risk of exposure

Do-it-yourself mechanics may also be exposed to asbestos when performing automotive repairs with minimal equipment, especially if they lack proper training. Similarly, workers who wear their contaminated clothing home can put their families at risk too. One example is the Dow Chemical plant in Plaquemine, Louisiana, which is often referred to as "Cancer Alley" due to the proliferation of the chemical companies in the area and the high levels of pollution and illness.

ADAO implores the White House to urge the EPA and/or Congress to stop imports and use and study

legacy asbestos, but in the meantime, ADAO offers our educational resources and time to work with the White House Environmental Justice Advisory Council to advance prevention and policy efforts to end environmental injustice, suffering, and asbestos-caused deaths.

Our [kNOw Asbestos website](#) has information that could help save American lives, and we hope that the White House Environmental Justice Advisory Council makes an active effort to spread this information to disenfranchised communities that live at great risk of asbestos exposure. The Council should hold informational sessions for those communities, and work to make sure that people at risk of asbestos exposure know that it is still legal and lethal in the U.S. Health centers in at-risk neighborhoods should help spread information, and the Council should work with doctors and hospitals in the area to make sure they know how to spot early warning signs of asbestos-caused illnesses.

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"United for Asbestos Disease Awareness, Education, Advocacy, and Community Support" 1525 Aviation Boulevard, Suite 318 · Redondo Beach · California · 90278 · (310) 251-7477 www.AsbestosDiseaseAwareness.org

Gasoline Engine Leaf Blower Health Hazards, Environmental Harm, Legislation and Alternatives For the White House Environmental Justice Advisory Council

Alexander D. Blumenstiel, Ph.D.

December 2, 2021



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1. Introduction

Commercial landscapers, grounds maintenance personnel and private citizens routinely use gasoline engine-powered leaf blowers for lawn, garden and other surface maintenance operations, regardless of the harm to health, hearing, quality of life, and the environment. Numerous communities have enacted legislation banning the use of these machines or restricting leaf blower noise, hours and seasons of operation.

This document contains information on health hazards, environmental damage and other harm caused by the use of leaf blowers, and examples of laws restricting or banning their use. The purpose is to provide information to support enactment of Federal, state and local legislation to effectively constrain the damage to our health and the environment from leaf blowers.³⁰⁰

2. The Problem

Leaf blowers emit health-hazardous materials, damaging noise and air pollution. This endangers the health, hearing and degrades the quality of life of those exposed, damages nature, and degrades the well-being of multitudes of communities in the United States and worldwide.

“For example, as the Mount Sinai School of Medicine Pediatric Environmental Health Specialty Unit reported, gas-powered leaf blowers pose multiple health threats by spreading airborne particles, which can provoke asthma and other respiratory diseases, and pollutants including ozone, carbon monoxide, nitrogen oxides and hydrocarbons, respiration of which can cause cancer and other diseases. Hearing damage from the engine noise and eye injuries from pebbles and twigs propelled by blowers are also cited.”²

In communities where they are still legal, and in those not effectively enforcing duly enacted legislation banning or restricting leaf blower use, children, the elderly, the infirm, those working at home -- all those exposed -- are relentlessly attacked by the destructive noise and the health-hazardous filth and exhaust from leaf blowers approximately nine months, and in many communities, twelve months of the year.

3. Noise

Unprotected exposure to noise louder than 65 decibels (65 dB) has been found to raise blood pressure and adrenaline levels, and damage hearing. Leaf blowers typically emit noise louder than 77 dB at 50ft. from the blower. Decibels are measured on a logarithmic scale, and 77 dB is 256 times louder than 65 dB. The noise from leaf blowers can irreversibly damage the hearing of all exposed, especially children and landscape workers, but even adult passersby — essentially anyone exposed. Children

³⁰⁰ Growing up in the family landscape/gardening and garden center businesses, my first post-high school degree was a State University of New York, Agricultural and Technical Institute at Farmingdale 1960 Associate of Applied Science (AAS) in Horticulture. That was before somebody (probably) attached a gasoline engine to what had been a handcranked dry pesticide blower, like the one I used back then, and realized it could also be used to clear detritus from lawns, walkways and other surfaces. Leaf blowers have been available in the United States since 1977. ² “Landscape Leaf Blower Facts: Office of Sustainability and the Environment, City of Santa Monica, CA. https://www.smgov.net/Departments/OSE/Categories/Landscape/Leaf_Blower_Facts.aspx

are especially vulnerable to life-long hearing loss and tinnitus from this noise.³⁰¹³⁰²

3.1 Noise Measurement

Communities may require the use of A-weighted dB meters to restrict noise magnitude measurement to frequencies the human auditory system typically detects. However, Aweighted or not, dBs are measured on a log10, not a linear, scale. On the log10 scale, twice the loudness is approximately 3 dB; for example, 50 dB + 50 dB = 53 dB, not 100 dB.

"A change in power by a factor of two approximately corresponds to a 3 dB change." "The threshold of hearing is 25 dB." "If two machines each individually produce a [sound pressure] level of ... 90 dB at a certain point, then when both are operating together we should expect the combined sound pressure level to increase to 93 dB, but certainly not to 180 dB!

"...supposed (sic) that the noise from a machine is measured (including the contribution of background noise) and found to be 87 dBA, but when the machine is switched off the background noise alone is measured as 83 dBA. ... the machine noise [level (alone)] may be obtained by 'subtracting' the 83 dBA background noise from the combined level of 87 dBA; i.e., 84.8 dBA."³⁰³

The following table compares dB and noise increases for background noise levels of 50 dB and 65 dB, leaf blower noise from 0 dB to 140 dB and total noise ranging from background to 143 dB.

³⁰¹ Also see: "Suburbia's crickets drowned out by roar of jets, earth movers", By Keith O'Brien, Globe Staff | November

³⁰² , 2007 (http://www.boston.com/news/local/articles/2007/11/18/suburbias_crickets_drowned_out_by_roar_of_jets_earthmovers/?page=full)

³⁰³ <http://en.wikipedia.org/wiki/Decibel>

Leaf Blower Noise									
Background Noise in Decibels (dBs)	Leaf Blower Noise in dBs	dB Increase due to Leaf Blower Noise	Total Background and Leaf Blower Noise in dBs	Percent of Noise Increase due to the Leaf Blower	Background Noise in Decibels (dBs)	Leaf Blower Noise in dBs	dB Increase due to Leaf Blower Noise	Total Background and Leaf Blower Noise in dBs	Percent of Noise Increase due to the Leaf Blower
50	0	0	50	0%	65	0	0	65	0%
	50	3	53	100%		65	3	68	100%
	53	6	56	200%		68	6	71	200%
	56	9	59	400%		71	9	74	400%
	59	12	62	800%		74	12	77	800%
	62	15	65	1600%		77	15	80	1600%
	65	18	68	3200%		80	18	83	3200%
	68	21	71	6400%		83	21	86	6400%
	71	24	74	12800%		86	24	89	12800%
	74	27	77	25600%		89	27	92	25600%
	77	30	80	51200%		92	30	95	51200%
	80	33	83	102400%		95	33	98	102400%
	83	36	86	204800%		98	36	101	204800%
	86	39	89	409600%		101	39	104	409600%
	89	42	92	819200%		104	42	107	819200%
	92	45	95	1638400%		107	45	110	1638400%
	95	48	98	3276800%		110	48	113	3276800%
	98	51	101	6553600%		113	51	116	6553600%
101	54	104	13107200%	116	54	119	13107200%		
104	57	107	26214400%	119	57	122	26214400%		
107	60	110	52428800%	122	60	125	52428800%		
110	63	113	104857600%	125	63	128	104857600%		
113	66	116	209715200%	128	66	131	209715200%		
116	69	119	419430400%	131	69	134	419430400%		
119	72	122	838860800%	134	72	137	838860800%		
122	75	125	1677721600%	137	75	140	1677721600%		
125	78	128	3355443200%	140	78	143	3355443200%		

4. Health and Safety Hazards

In addition to the noise, leaf blowers blast health-hazardous, polluting exhaust, and 'fugitive dust,' consisting of particles of fertilizer, lead, pesticides, herbicides, insect remains, animal feces, rubber dust, arsenic, cadmium, chromium, nickel, mercury and other toxic substances into the air.

4.1 Exhaust Poisons

Most leaf blowers are powered by two-cycle engines. These burn a mixture of gasoline and motor oil and exhaust many times more hydrocarbons, oxides of nitrogen, carbon monoxide and other pollutants than do cars.³⁰⁴ "A gasoline-powered leaf blower generates as much tailpipe emissions in one hour as an automobile does over 100 miles."³⁰⁵

"Because the engine lacks an independent lubrication system, fuel has to be mixed with oil. More important, about 30 percent of the fuel the engine uses fails to undergo complete combustion; as a result, the engine emits a number of air pollutants. Carbon monoxide, nitrous oxides and hydrocarbons escape from the

³⁰⁴ See: California Environmental Protection Agency, Air Resources Board, "A Report to the California Legislature on the Potential Health and environmental Impacts of Leaf Blowers", Mobile Source Control Division, February 2000. (<http://www.arb.ca.gov/msprog/mailouts/msc0005/msc0005.pdf>), and "Leaf Blower's Emissions Dirtier than High-Performance Pick-Up Trucks", Says Edmunds' InsideLine.com", December 6, 2011 (<http://www.edmunds.com/about/press/leaf-blowers-emissions-dirtier-than-high-performance-pick-up-trucks-says-edmunds-insideline.com.html>); Washington Post, 16 Sept 2013 http://www.washingtonpost.com/national/health-science/how-bad-for-the-environment-are-gas-powered-leaf-blowers/2013/09/16/8eed7b9a-18bb-11e3-a628-7e6dde8f889d_story.html

³⁰⁵ "Landscape Leaf Blower Facts" (https://www.smgov.net/Departments/OSE/Categories/Landscape/Leaf_Blower_Facts.aspx)

engine in large quantities. Everyone knows the acute effects of carbon monoxide, but the other gases are equally worrisome. Both nitrous oxides and hydrocarbons contribute to smog formation. Hydrocarbons can be carcinogenic, and nitrous oxides can cause acid rain.

“In leaf blowers, two-stroke engines have been shown to emit contaminants comparable to large automobiles. A 2011 test by the car experts at Edmunds showed that, ‘a consumer-grade leaf blower emits more pollutants than a 6,200pound 2011 Ford F-150 SVT Raptor.’ The company subjected a truck, a sedan, a four-stroke and a two-stroke leaf blower to automotive emissions tests and found that under normal usage conditions — alternating the blower between high power and idle, for example — the two-stroke engine emitted nearly 299 times the hydrocarbons of the pickup truck and 93 times the hydrocarbons of the sedan. The blower emitted many times as much carbon monoxide and nitrogen oxides as well. The four-stroke engine performed significantly better than the two-stroke in most of the categories, but still far worse than the car engines.”³⁰⁶

Highly regarded medical research shows that breathing these poisons can cause and make asthma attacks worse, cause heart, lung and brain disease, and cancer, and impair the ability to fight infections.³⁰⁷

Because of the emissions and noise, leaf blower users violate United States and many state health and air pollution laws.³⁰⁸ When using leaf blowers, even municipal and state grounds-maintenance employees and contractors frequently violate local laws, Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA) and other federal and state laws and regulations.

4.2 Endangerment

Leaf blower users endanger the safety of pedestrians, vehicle drivers and passengers, and bicyclists.

In addition to the noise and exhaust pollution, leaf blowers blast detritus onto sidewalks, forcing pedestrians, including children, to walk through clouds of hazardous dust, or into the street to avoid it. This endangers them and degrades vehicular safety.

4.3 Disease

“With a muzzle velocity of 150 miles per hour, gas blowers blow herbicides, pesticides, and fecal contaminants up from the ground into the air, especially troubling asthmatics and allergy sufferers, and increasing the threat to everyone.”³⁰⁹

Leaf blower operators and others inhale the exhaust and detritus blown into the air from the surfaces they clear. Health impacts of leaf blowers include, for example, the consequences of breathing dust containing diseases transmitted by rodents. These

³⁰⁶ Washington Post, 16 Sept 2013

https://www.washingtonpost.com/national/health-science/how-bad-for-the-environment-are-gas-powered-leafblowers/2013/09/16/8eed7b9a-18bb-11e3-a628-7e6dde8f889d_story.html

³⁰⁷ Fine Particulate Air Pollution and Mortality in 20 US Cities, 1987-1994, Jonathan A. Samet, MD, et al., New England Journal of Medicine, Vol. 343, No. 24, pp. 1742-1749 (Dec. 14, 2000) (<https://www.nejm.org/doi/full/10.1056/NEJM200012143432401>)

³⁰⁸ Fine Particulate Matter (PM) from Leaf Blowers, (Draft), Alexander D. Blumenstiel, Ph.D., December 11, 2014 (<http://files.meetup.com/4709972/Leaf%20Blower%20Fine%20Particulate%20Matter%20Emissions%20Estimate%20Draft%202.pdf>)

³⁰⁹ “Landscape Leaf Blower Facts” (http://www.smgov.net/Departments/OSE/Categories/Landscape/Leaf_Blower_Facts.aspx)

include Hantavirus pulmonary syndrome and Lymphocytic Choric-meningitis (LCM). Hantavirus pulmonary syndrome is found throughout North and South America, and LCM worldwide.³¹⁰

Epidemiological studies have found that particles in the dust, especially those smaller than 10 micrometers in diameter (PM10) and finer than 2.5 micrometers in diameter (PM2.5), contribute significantly to the incidence of and mortality from a variety of respiratory, cardiovascular, cerebrovascular and other diseases.

“The air-jet generated by blowers with velocities of 185 miles per hour or more spreads dust, dirt, pollens, animal droppings, herbicides and pesticides into the air. The effect lasts for hours on particulate matter that is 10 microns in diameter or smaller. The (California Air Resources Board) ARB has estimated that each leaf blower entrains (puts into the atmosphere) 5 pounds of particulate matter per hour about half of which is 10 microns or smaller.”³¹¹

4.3.1 University of California Study

Findings reported by the College of Engineering, Center for Environmental Research and Technology, University of California, Riverside can be extrapolated to estimate average annual exposures of leaf blower operators and others to these disease-causing particles. However, this study neither measured leaf blower PM emissions from a full spectrum of common leaf blower applications nationwide, nor empirically measured collective emissions from multiple leaf blowers operating in close proximity.

The study measured the dispersion of suspended particles in two enclosed test chambers. “Seventy-two runs were performed using surrogate material on asphalt and concrete surfaces using the 20m(meter) long chamber.” This chamber, at the UCR CECERT (Center for Environmental Research and Technology) facility in Riverside, was 2m wide, 2m high and 20m long. A second enclosed chamber, 2m wide, 2m high and 10m long was used to perform tests at additional locations. Emissions detectors were used to measure the airborne particulate matter concentrations in the test chambers.

The principal purpose of the study was to “develop emission inventories for counties in the San Joaquin Valley”. It was not to determine the exposure of operators and proximate others to concentrations of fine particulate matter in fugitive dust emissions from leaf blowers while they are running or for an extended period in the vicinity thereafter. The entrained emissions estimates were calculated for the period from when the leaf blowers stopped operating to 6.5 minutes after their operation ceased.

Extrapolating from the study’s emissions factors findings which, since “the (PM in the test) chamber was not well mixed for several minutes,” were “calculated by multiplying the concentration once it stabilized (when it became uniformly mixed) by the volume of the enclosure and dividing by the area treated”. A homeowner using a leaf blower an average of 1/2 hours per week 26 weeks per year (and others in the vicinity) would, on average, be exposed to a constant 49.7 milligrams per cubic meter (mg/m³) of airborne PM10 per square meter cleared for 13 hours per year while operating a leaf blower,

³¹⁰ (United States Center for Disease Control (<http://www.cdc.gov/rodents/diseases/direct.html>)). Also see: (<http://www.orkin.com/rodents/rats/rat-borne-diseases/>)

³¹¹ Leaf Blower Pollution Hazards in Orange County, Orange County Grand Jury, April 1999; (<http://www.ocgrandjury.org/pdfs/leafblow.pdf>)

assuming equivalence between the emissions factors .

A commercial lawn/garden maintenance worker using a leaf blower for 10 minutes ten times per day 5 days per week for 26 weeks per year would on average be exposed to inhaling this amount of PM10 at a constant rate for 217 hours per year.

In both cases, the amount of hazardous PM10 inhaled and retained in their respiratory, cardiovascular and cerebrovascular systems would be cumulative.

Though the study found the blowers and the push brooms produced the same average 80 mg/m² of 10 micrometer suspended health-hazardous particulate matter (PM10) and the broom slightly more total suspended particulate matter (TSP) — which includes larger particles that are not as hazardous -- from the concrete surfaces, the blowers in the study entrained on average a 10mg/m² higher level of the most health-hazardous PM2.5 from the concrete surfaces. The blowers' average PM pollution from the other surfaces far exceeded the broom's and especially the rake's.

The report cites U.S. Department of Labor Occupational Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (CalOSHA) permissible exposure levels for PM up to 10 micrometers. "The OSHA permissible exposure level (PEL) (the level a healthy individual can work in for eight hours) is 10mg/m³ and the CalOSHA level short-term exposure level (STEL) (level that a healthy individual can work in for fifteen minutes) is 20mg/m³."

Assuming their continuous exposure to 49.7mg/m³ of airborne PM10, including 23.7mg/m³ of PM2.5 when clearing surfaces:

For 13 hours/year, private operators' and proximate others' average:

- PM10 exposure exceeds the OSHA 20mg/m³ fifteen-minute PM10 STEL by 29.7mg/m³ and is 0.3mg/m³ lower than the U.S. Environmental Protection Agency's (EPA's) 50mg/m³ total PM10 annual exposure limit.
- PM2.5 exposure exceeds the OSHA 20mg/m³ fifteen-minute PM10 STEL by 3.7mg/m³.
- Private operators average exposure to 23.7mg/m³ of PM2.5 for 13 hours exceeds EPA's 12mg/m³ annual exposure limit by 11.7mg/m³.
- Commercial operators' average PM10 exposure from leaf blowers exceeds the 20mg/m³ STEL by 29.7mg/m³ and PM2.5 exposure by 3.7mg/m³ for 10 minutes ten times per day, or 217 hours per year.

At an average of 49.7 mg/m³, the fine PM emissions from leaf blowers exceed the

OSHA respirable mineral dust PEL by $49.7 - 7.5 = 42.2 \text{ mg/m}^3$ and the OSHA total mineral dust PEL by $49.7 - 27.5 = 22.2 \text{ mg/m}^3$.

At an average of 23.7 mg/m^3 , the fine PM_{2.5} emissions from leaf blowers exceed the OSHA total respirable mineral dust PEL by $23.7 - 7.5 = 16.2 \text{ mg/m}^3$.

Alternatively, based on the U.S. Department of Labor OSHA milligrams per cubic meter dust PELs, the average respirable mineral dust particle PEL is $(10+2.4+10)/3 = 7.5 \text{ mg/m}^3$, and average total mineral dust PEL is $(30+80+2.4+10+15)/5 = 27.5 \text{ mg/m}^3$.¹³

In summary, private and commercial leaf blower operators subject themselves and others to high levels of airborne healthhazardous fine particulate matter which exceed United States legal permissible exposure limits.

4.4 Pollution

Although leaf blowers have been sold in the United States since 1977, the author has found neither comprehensive sales nor lifecycle data from which to directly calculate the number of leaf

blowers in operation nationally, regionally or by state and municipality in order to directly determine the current total U.S. leaf blower emissions.

However, the “Estimated Reported and Operational Number of Leaf Bowers” table does provide estimates of the number of leaf blowers in use from 1985 to 2015, and the current total annual emissions from those leaf blowers can be extrapolated from secondary information in the referenced sources.

At approximately 1.5 million estimated average annual sales from 1985 to 2015, assuming 50% are discarded annually after four years of use, as of 2015 there were approximately twenty-eight million leaf blowers operating in the United States, For the estimated 217 hours per year per leaf blower of commercial operation, this comes to 6,076,000,000 total estimated hours of leaf blower operation per year.

Estimated Reported and Operational Number of Leaf Blowers			
Year	Reported and Projected Sales	Discarded*	Total
1985	75,000.00		
1986	389,000.00	-	464,000.00
1987	464,000.00	-	928,000.00
1988	670,689.66	37,500.00	1,561,189.66
1989	800,000.00	194,500.00	2,166,689.66
1990	828,571.43	232,000.00	2,763,261.08
1991	853,061.22	335,344.83	3,280,977.48
1992	874,052.48	400,000.00	3,755,029.96
1993	892,044.98	414,285.71	4,232,789.23
1994	907,467.13	426,530.61	4,713,725.74
1995	920,686.11	437,026.24	5,197,385.61
1996	932,016.66	446,022.49	5,683,379.78
1997	1,000,000.00	453,733.56	6,229,646.22
1998	1,070,000.00	460,343.05	6,839,303.17
1999	1,144,900.00	466,008.33	7,518,194.83
2000	1,225,043.00	500,000.00	8,243,237.83
2001	1,310,796.01	535,000.00	9,019,033.84
2002	1,402,551.73	572,450.00	9,849,135.57
2003	1,500,730.35	612,521.50	10,737,344.43
2004	1,605,781.48	655,398.01	11,687,727.90
2005	1,718,186.18	701,275.87	12,704,638.21
2006	1,838,459.21	750,365.18	13,792,732.25
2007	1,967,151.36	802,890.74	14,956,992.87
2008	2,104,851.95	859,093.09	16,202,751.73
2009	2,252,191.59	919,229.61	17,535,713.71
2010	2,400,000.00	983,575.68	18,952,138.03
2011	2,568,000.00	1,052,425.98	20,467,712.06
2012	2,747,760.00	1,126,095.79	22,089,376.26
2013	2,940,103.20	1,200,000.00	23,829,479.46
2014	3,145,910.42	1,284,000.00	25,691,389.89
2015	3,366,124.15	1,373,880.00	27,683,634.04
Total:	45,915,130.31	22,957,565.15	27,683,634.04
Annual Average	1,481,133.24	588,112.78	10,285,535.82

*Assumes annual discard rate of 50% of unit sales per year after 4 years.
 Sales in **Bold** are from: 1985, 1987, 1989 & 1997: <http://www.nonoise.org/quietnet/cqs/leafblow.htm#history>
 2010 from "Blowback" by Tad Friend, New Yorker Magazine, October 18, 2010 (<http://www.newyorker.com/magazine/2010/10/25/blowback>)
 All other annual sales are projected from these.

¹³ Leaf blowers emit these and other types of particles. Both totals include respirable coal dust. “Occupational Safety and Health

4.4.1 Carbon Dioxide

Assuming half of the leaf blowers are two-cycle and half four-cycle (since the vast majority are likely two-cycle, this is most probably a large underestimate of their number), according to the cited Edmunds study, the average leaf blower emits $(3.714+6.445)/2 = 5.0795$ weighted grams per minute of CO₂, which is 18.4 times more than a 2011 Ford Raptor’s 0.276 weighted CO₂ grams per minute.

The estimated 28,000,000 leaf blowers therefore produce $28,000,000 \times 5.0795 = 142,226,000$ grams per minute of CO₂, or the CO₂ equivalent of 515,311,594 Ford Raptors.

At the estimated 217 annual hours of operation each, the 28,000,000 leaf blowers produce $(142,226,000 \times (60 \times 217)) = 1,851,782,520,000$ weighted grams, or 1,851,782.5 metric tons of CO₂ per year.

5. Alternatives

There is no reason to believe leaf blowers are more effective or, other than perhaps marginally, more efficient than non-polluting, non-health-hazardous and safer manual tools.³¹² For example, fan rakes and manual brooms do not emit health and environmentally hazardous exhaust, are quiet, have minimal maintenance requirements, and are orders of magnitude less expensive than leaf blowers.¹⁵ Some commercial landscapers have threatened to charge more, if their use of leaf blowers is restricted or banned. However, they have evidently failed to present credible:

- Evidence that they lowered their rates when they started using leaf blowers,
- Comparative data on labor, fuel, maintenance and other expenses when they do and don’t use leaf blowers,
- Data-based arguments disputing the applicability of national, state and local health-impact and environmental degradation control laws and regulations to the use of these machines.³¹³

Competitive commercial landscapers who do not use leaf blowers do currently provide services. For example, Green Newton, a local non-profit environmental organization in Newton, Massachusetts, provides “a list of green landscapers that will use traditional raking and non-gasoline-powered leaf blowers to create sustainable solutions to environmental problems facing our city and our world”.³¹⁴

6. Legislation

“Many U. S. towns and counties now regulate leaf-blower noise. Some locales ...restrict

³¹² See <http://www.terranovalandscaping.com/blog/2012/02/10/open-letter-to-landscapers-and-leaf-blower-operators-in-the-santacruz-area-january-31-2012/> and <http://www.noisefree.org/newsroom/noise-display.php?id=416> for fan rake and broom compared to leaf blower efficiency and other information. Also see: <http://www.quietcommunities.org> and <https://www.greendecade.org>.¹⁵ For example, see: “Impacts of leaf blowers”, (<https://www.terranovalandscaping.com/>)

³¹³ See: <http://www.ecomagic.org/blower.shtml> for a comprehensive discussion of costs of using leaf blowers.

³¹⁴ <https://greennewton.org/gn-recommended-lawn-care-provider-info/>

blower use to certain times of the day or year. Others ban gasoline-powered leaf blowers while allowing only electric blowers.”³¹⁵

6.1 Bans and Other Restrictions

Arizona

Scottsdale: MARICOPA COUNTY ORDINANCE P-25 LEAF SEC. 3: BLOWER RESTRICTION.

Prohibits blowing landscape debris into public roadways at any time by any person. (http://www.maricopa.gov/aq/divisions/planning_analysis/rules/docs/p25-0802.pdf) Prohibits using leaf blowers on bare, native soil (they can only be used on stabilized surfaces. (http://www.scottsdaleaz.gov/airquality/dust_control/ResidentImpacts.asp) "designed to bring the Valley into compliance with EPA air quality standards for particulates (PM-10)" (http://www.maricopa.gov/aq/divisions/planning_analysis/state_implementation_plan.aspx)

British Columbia

Vancouver: Noise Control Bylaw 6555: Limited area ban, noise and hours of operation restrictions (<http://vancouver.ca/home-property-development/leaf-blowers.aspx>)

California

Belvedere Municipal Code Chpt. 8.10.030

Prohibition against portable gasoline engine powered blowers. It is unlawful for any person within the City limits at any time to operate any portable machine powered with a gasoline engine used to blow leaves, dirt and other debris off sidewalks, driveways, lawns or other surfaces. (Ord. 2006-3 § 3 (part), 2006; Ord. 87-3 § 1 (part), 1987.)

Berkeley Municipal Code 13.40.070 Prohibited acts:

“Neither the warning procedure nor the measurement procedure must be conducted for a violation of subsection B.10 of this section (emergency tests), subsection B.13 of this section (tampering), or subsection B.14 of this section (gas leaf blowers) to arise. Section B.14: 14. Notwithstanding subsection B.11 of this section, it shall be unlawful for any person, including any City employee, to operate any portable machine powered with a gasoline engine used to blow leaves, dirt, and other debris off sidewalks, driveways, lawns, or other surfaces within the City limits.

“Notice of this prohibition shall be posted in all stores selling such gasoline powered machines within the City limits. (Ord. 7122-NS § 7, 2009; Ord. 6026-NS § 1, 1990; Ord. 5500-NS § 1 (part), Section 13.40.070)1982) Gasoline Powered Leaf Blowers (<http://codepublishing.com/ca/berkeley/>)”

Community Noise Program – City of Berkeley, California
http://www.ci.berkeley.ca.us/Health_Human_Services/Environmental_Health/Community_Noise_Program.aspx

(Ordinance No. 5500-N.S., Section 13.40.070): "... it shall be unlawful for any person, including any city employee, to operate any portable machine powered with a gasoline engine used to blow leaves, dirt, and other debris off sidewalks, driveways, lawns, or other surfaces within the City limits."

³¹⁵ See: <http://www.consumerreports.org/cro/magazine-archive/2010/september/home-garden/leaf-blower/blower-noise/index.htm>, and <http://files.meetup.com/4709972/Leaf%20Blower%20bans%2C%20etc.pdf>.

“This program is mandated by the Berkeley Municipal Code (BMC) and sets forth standards by which noise is measured. The program is driven by requests for service from the public. Inspectors respond to complaints and enforce, interpret, and educate citizens about the noise ordinance. After-hours complaints are handled by the Berkeley Police Department on a priority basis.”

Beverly Hills, 5-1-209: PORTABLE GASOLINE ENGINE POWERED BLOWERS.

“It shall be unlawful for any person within the city to use or operate any portable machine powered with a gasoline engine used to blow leaves, dirt, and other debris off sidewalks, driveways, lawns, or other surfaces. (Ord. 11-O-2613, eff. 10-31-2011)” (http://www.sterlingcodifiers.com/codebook/index.php?book_id=466)

Burlingame, Title 10:Public Peace Morals and Safety.

(a) On and after July 1, 2012, leaf blowers operated within the city of Burlingame shall display a label which certifies that it operates at a noise level of sixty-five (65) dBA or less. Any leaf blower which bears such a certification label shall be presumed to comply with any noise level limit of this chapter provided that it is operated with all the mufflers and full extension tubes supplied by the manufacturer for that leaf blower. It is unlawful to operate a leaf blower within the city which does not bear such a label or which exceeds the 65 dBA level.

(b) On and after July 1, 2012, leaf blowers operated within the city of Burlingame shall only be operated during the times, on the days and in the areas as follows... (<http://qcode.us/codes/burlingame/>)

Callexico: “It shall be unlawful for any person within the city to use or operate any portable machine powered with a gasoline engine used to blow leaves, dirt, and other debris off sidewalks, driveways, lawns, or other surfaces. (Ord. 11-O-2613, eff. 10-31-2011)”

Carmel: “8.56.080 Combustion Engine Blower. The operation of a combustion engine blower for the purpose of displacing, removing or blowing any materials from or about public or private property in a manner which allows the engine to be heard on public property or causes the materials to be blown into the air in a manner which allows them to settle on public property or on private property not belonging to the same owner of the property on which the blower is being operated is declared to be a public nuisance and unlawful. (Ord. 92-17 § 1, 1992; Ord. 80-4 § 1, 1980; Code 1975 § 699.70).” (<http://www.codepublishing.com/CA/carmel.html>)

Claremont: “8.24.020 Leaf blower use. Leaf blowers powered by installed line current or by battery may be used in the city subject to the provisions of this chapter notwithstanding the noise standards in Chapter 16.154 of this code. Internal combustion engine (gasoline) powered leaf blowers shall be prohibited in the city after March 1, 1991. (90-29) (<http://www.ci.claremont.ca.us/municipalcode.cfm>)”

Costa Mesa: “Article 4 Sec. 20-10. Residential areas. In residential areas, or within fifty (50) feet thereof, the use of leaf blowers is prohibited except during the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, 9:00 a.m. to 5:00 p.m. on Saturdays; and 12:00 noon to 5:00 p.m. on Sundays and legal holidays.

“(b) Maximum noise levels. Notwithstanding provisions of Chapter XIII, Noise Control of Title 13 of this Code, the maximum noise level emitted by leaf blowers shall not exceed sixty-five (65) decibels and shall not exceed fifty-five (55) decibels for more than a total of fifteen (15) minutes at any given location. The noise level shall be measured at a

distance of fifty (50) feet from the leaf blower.

“(c) Dirt, dust, debris. Leaf blower operations shall not cause dirt, dust, debris, leaves, grass clippings, cuttings or trimmings from trees or shrubs to be blown or deposited on any adjacent street or property, or upon the property on which the leaf blower is being operated. Deposits of dirt, dust, leaves, grass clippings, debris, cuttings or trimmings from trees or shrubs shall be removed and disposed of in a sanitary manner, to prevent disbursement by wind, vandalism, or similar means.

“(d) Windows and other openings. Leaf blowers shall not be operated within a horizontal distance of ten (10) feet of any operable window, door or mechanical air intake opening or duct.

“(e) Identification required. Each leaf blower shall have the business name, address, and telephone number affixed to it in a clear, identifiable manner.” (Ord. No. 13-04, § 1, 10-1-13) [_ \(https://www.municode.com/library/ca/costa_mesa/codes/code_of_ordinances?](https://www.municode.com/library/ca/costa_mesa/codes/code_of_ordinances?searchRequest=%7B%22searchText%22:%22leaf%20blowers%22,%22pageNum%22:1,%22resultsPerPage%22:25,%22booleanSearch%22:false,%22stemming%22:true,%22fuzzy%22:false,%22synonym%22:false,%22contentType%22:%5B%22CODES%22%5D,%22productIds%22:%5B%5D%7D&nodeId=TIT20PRMA_CHIIPRMAS_ART4LEBL_S20-10LEBL)

[searchRequest=%7B%22searchText%22:%22leaf%20blowers%22,%22pageNum%22:1,%22resultsPerPage%22:25,%22booleanSearch%22:false,%22stemming%22:true,%22fuzzy%22:false,%22synonym%22:false,%22contentType%22:%5B%22CODES%22%5D,%22productIds%22:%5B%5D%7D&nodeId=TIT20PRMA_CHIIPRMAS_ART4LEBL_S20-10LEBL\)](https://www.municode.com/library/ca/costa_mesa/codes/code_of_ordinances?searchRequest=%7B%22searchText%22:%22leaf%20blowers%22,%22pageNum%22:1,%22resultsPerPage%22:25,%22booleanSearch%22:false,%22stemming%22:true,%22fuzzy%22:false,%22synonym%22:false,%22contentType%22:%5B%22CODES%22%5D,%22productIds%22:%5B%5D%7D&nodeId=TIT20PRMA_CHIIPRMAS_ART4LEBL_S20-10LEBL)

Palo Alto, Leaf Blower Ban, June 13, 2005 <http://www.ccblincoln.com/CCBL/Towns/PaloAlto.html>

“Gas-powered leaf blowers may not be used in any residential zones by anyone including residents.

“Electric leaf blowers (no internal combustion engines) may be used only during the following hours:

- Residential zones

Monday – Friday 9 am – 5 pm

Saturday 10 am – 4 pm

Sundays and Holidays not allowed* (see * below for list of holidays)

Non – residential zones

- Electric and gas-powered blowers may be used only during the following hours:

Monday – Friday 8 am – 6 pm

Saturday 10 am – 4 pm

Sundays and Holidays not allowed”

*City of Santa Monica:*³¹⁶ “Leaf blowers pose multiple health risks due to air pollution attributed to their use. The pollution comes in the form of unburned fuel, from the inefficient combustion process inherent in such devices, and from a mixture of fine particles blown into the air, particles that can go deep into the human lungs. To address these concerns and others, many cities have banned leaf blowers; and Santa Monica

³¹⁶ http://www.smgov.net/departments/ose/categories/landscape/leaf_blower_ban.aspx

has recently renewed its commitment to the enforcement of its leaf blower ban, which has been in place since 1991. See Leaf Blower Facts page.

“The Law (S.M.M.C. 4.08.270); “No person shall operate any leaf blower (gas, electric, or battery powered) within the City. A leaf blower is defined as any motorized tool (gas, electric, or battery powered) used to propel fallen leaves and debris for removal. Infractions will be punishable by substantial fines to property owners, property and landscape management companies, individual operators, and/or water customers.”

1. Del Mar, Hermosa Beach, Laguna Beach, Los Angeles, Palo Alto, Solana Beach, Santa Monica and Tiburon ban all leaf blowers
2. Cypress, Dana Point, Los Altos, Malibu, Mill Valley Newport Beach, Piedmont, Santa Barbara, and West Hollywood ban the use of gasoline-powered leaf blowers.
3. Culver City enforces a partial ban on leaf blower use
4. Davis and St. Helena restrict leaf blower noise.

“Although certainly a conspicuous issue in many U.S. localities, use of leaf blowers has been the subject of particularly intense debate and rulemaking in the State of California. As many as 44 California cities have already enacted bans, laws and regulations regarding leaf blower use.

“Why all the concern over a modest-sized, hand held piece of machinery? Well, these devices have become notorious for noisily stirring up dangerous dust including airborne feces, allergens, molds, and pollens. All of these pollutants aggravate allergy and asthma problems. One study conducted by the American Lung Association examined types of materials or toxins found in street dust. Found among the particulates examined were traces of arsenic, cadmium, chromium, nickel, and mercury.

“The Los Angeles chapter of the American Lung Association has produced research to illustrate how leaf blowers generate as much pollution in one hour as a car driven for 100 miles produces.

“At-Risk groups include the elderly with cardio-pulmonary problems; individuals who exercise outdoors, and young infants. Sudden Infant Death Syndrome has been associated with the negative effects and pollutants from leaf blowers according to a 1997 government study; “The Relationship between Selected Causes of Infant Mortality and Particulate Air Pollution in the United States.

"Gasoline powered Leaf Blowers use two-stroke engines that are not only smoky, but induce pollution from the combustion of oil. Emissions from these machines include particulate materials, carbon monoxide, nitrogen oxides, and hydrocarbons (CO, NOx, and HC).

““One of the most disturbing features of leaf blowers is the major contribution that they make to noise pollution. The Zero Air Pollution Los Angeles (ZAPLA) states that leaf blower use at one residence impacts eight to fourteen neighbors. According to the Occupational Safety and Health Administration, the noise induced by leaf blowers at 90 decibels exceeds the threshold of danger at 85 decibels and can seriously impair hearing. Leaf blowers are used mainly in residential areas where many types of residents are exposed to their pollutants and noise. This population includes homemakers, retirees, day sleepers, young toddlers, the ill or disabled, and pets.

“Those at highest risk are the blower operators--gardeners and yard workers, who regularly omit wearing protective headphones and respiratory gear.

“According to one manufacturer’s lobbyist, at a distance of fifty feet, the average blower measures 70-75 decibels. But the World Health Organization states that in order to have a healthy environment daytime noise levels should not exceed 55 decibels. A decibel level of 65 at 50 feet might still be 100 decibels or more next to a gardener’s ear. California is serious about enforcement of leaf blower regulations, with fines ranging from \$50- \$750. In Toronto, Canada the maximum fine is \$5,000.”³¹⁷

Colorado

Aspen Gas Powered Leaf Blower Enforcement Began, July 18, 2005 <http://www.ccblincoln.com/CCBL/Towns/Aspen.html>

“The out-right ban has been in effect since April, 2003, when City Council approved the revisions to the existing noise ordinance.

“Effective July, 25, 2005, the City of Aspen Environmental Health staff will start conducting daily surveillance throughout town to enforce the City wide ban on gas powered leaf blowers.”

Maryland

Montgomery: Excerpted from: Code of Montgomery County Regulations (COMCOR) Chapter 31B-1: “(a) The County Council finds that excessive noise harms public health and welfare and impairs enjoyment of property. The intent of this Chapter is to control noise sources to protect public health and welfare and to allow the peaceful enjoyment of property. This Chapter must be liberally construed to carry out this intent., Section 31B-2i (i) Leaf blower means any portable device designed or intended to blow, vacuum, or move leaves or any other type of unattached debris or material by generating a concentrated stream of air. Leaf blower includes devices or machines that accept vacuum attachments. Sec. 31B-9. Leaf blowers.

- (a) Except as provided in this section, a person must not sell, buy, offer for sale, or use a Leaf blower at any time that has an average sound level exceeding 70 dBA at a distance of 50 feet. This requirement is in addition to any other noise level or noise disturbance standard that applies under this Chapter.
- (b) An individual who owns or occupies a residence in a residential noise area may use at the individual's residence a Leaf blower bought or manufactured before July 1, 1990, until July 1, 1998, even if it exceeds the standard in subsection (a). After July 1, 1998, a person must not use any Leaf blower that violates the standard in subsection (a).
- (c) The Department must apply the standard in subsection (a) in accordance with the most current leaf-blower testing standard of the American National Standards Institute (ANSI).
- (d) The Department may inspect, and on its request a person must produce, any Leaf blower that is sold, offered for sale, or used in the County, to determine whether the Leaf blower complies with this section. A person who relies in good faith on a manufacturer's written representation of the sound level of a Leaf blower that has not been modified is not subject to a penalty for violating this section. (1996 L.M.C., ch. 32,

³¹⁷ http://www.cleanhouston.org/comments/archives/leaf_blowers.htm

§ 1.)” (<http://www.montgomerycountymd.gov/DEP/Resources/Files/downloads/compliance/Noise-control-ordinance.pdf>)

Massachusetts

Restrictions sought on leaf blowers; petition seeks to curb noise of gas machines By Christine Legere, Globe Correspondent, March 9, 2008 (http://www.boston.com/news/local/articles/2008/03/09/restrictions_sought_on_leaf_blowers_1205034599/?page=full)
Brookline: “General By-Laws Article 8. -- .Leaf blowers Section 8.—.

1: STATEMENT OF PURPOSE... limit and regulate the use of leaf blowers as defined and set forth herein....Leaf blowers are defined as any portable gasoline powered machine used to blow leaves, dirt and other debris (1) ff lawns, sidewalks, driveways, and other horizontal surfaces.

“2. Limitations on Use.a. Leaf blowers shall not be operated except between March 15 and May 15 and between September 15 and December 15 in each year. The provisions of this subsection do not apply to the use of Leaf blowers by the Town and its contractors. The provisions of this section also do not apply to non-residential property owners but only with respect to parcels that contain at least five acres of open space. The provisions of this subsection also shall not apply to the use of leaf blowers by the Town or its designees for performing emergency operations and clean-up associated with storms, hurricanes and the like.” (<http://www.brooklinema.gov/documentcenter/view/929>)

Cambridge: “8.16.081 - Leaf Blowers: The use of leaf blowers is prohibited except between March 15 and June 15 and between September 15 and December 31 in any year.... The use of leaf blowers is further prohibited on Sundays and legal holidays except Columbus Day and Veterans' Day and prohibited on other days except between the hours of 8:00 a.m. and 5:00 p.m. Mondays through Fridays and 9:00 a.m. and 5:00 p.m. Saturdays, Columbus Day and Veterans' Day. etc. (https://www.municode.com/library/ma/cambridge/codes/code_of_ordinances?nodeId=TIT8HESA_CH8.16NOCO_8.16.081LEBL)

Newton: Chapter 20 Article II: Noise Section 20-13 (g)(3), (4) and (7) (<http://www.newtonma.gov/civicax/filebank/documents/45829>)

“(a) This ordinance may be cited as the "Noise Control Ordinance of the City of Newton.”

(b) Declaration of findings and policy. Whereas excessive sound is a serious hazard to the public health and welfare, safety, and the quality of life; and whereas a substantial body of science and technology exists by which excessive sound may be substantially abated; and, whereas the people have a right to and should be ensured an environment free from excessive sound that may jeopardize their health or welfare or safety or degrade the quality of life; now therefor it is the policy of the City of Newton to prevent excessive sound which may jeopardize the health and welfare or safety of its citizens or degrade the quality of life.

(d) Definitions. For the purposes of this ordinance the following words and phrases shall have the meanings respectively ascribed to them by this section: Noise pollution: a condition caused by a noise source that increases noise levels 10dB(A) or more above background noise level, except that if the noise source produces a tonal sound, an increase at 5dB(A) or more above background noise level is sufficient to cause noise pollution.

Tonal sound: any sound that is judged by a listener to have the characteristics of a pure tone, whine, hum or buzz.

e) Noise Pollution prohibited.

(1) No person shall willfully, negligently, or through failure to provide necessary equipment or facilities or to take necessary precautions permit the establishment or continuation of a condition of noise pollution caused by a noise source (other than a dog or bird) owned, leased, kept, or controlled by such person, or caused by any activity of such person.

(2) When the offending noise source is located in public spaces, noise measurements shall be made at, and noise pollution determinations made in relation to, any location a passerby might reasonably occupy. When the offending noise source is located on private property, noise measurements shall be made at, and noise pollution determinations made in relation to, the boundary line of the property within which the offending source is located, or as close thereto as feasible.

3) All noise level measurements made pursuant to subsection (e) shall be made with a Type I or II A-weighted³¹⁸ sound level meter as specified under the American National Standards Institute (ANSI) standards. (f) Time Restrictions.

(1) Notwithstanding the provisions of subsection (e) and subject to the maximum noise levels listed in subsection (g), the generation of any noise from all electric motors and/or internal combustion engines employed in yard, garden, or grounds maintenance is prohibited except during the following time periods:

(A) Between 7:00 a.m. and 8:00 p.m. on weekdays; or

(B) Between 9:30 a.m. and 8:00 p.m. on Saturdays, Sundays and legal holidays as established in section 2-26 of these revised ordinances. (3) Yard, Garden, or Grounds Maintenance Equipment (i) Maximum noise level dB(A) permitted:

Commercial Chipper, 3 1/2 inch or greater limb capacity (running at full speed but not chipping).....	90
Commercial truck-mounted leaf vacuum	90
All other equipment, including home tractor, leaf blower, lawn mower or trimmer65

“Chapter 20 – page 10: “NEWTON CODE ONLINE – OFFENSES AND MISCELLANEOUS PROVISIONS § 20-13.

“Noise measurements shall be made at a distance of fifty (50) feet from the source, or from the nearest lot line, whichever distance is less.

“(4) Tonal Sound Corrections. When a tonal sound is emitted by a noise source specified in subsections (g)(1), (g)(2) and (g)(3) herein, the limit on maximum noise levels shall be 5dB(A) lower than as specified in subsections (g)(1), (g)(2) and (g)(3).”

New Hampshire

Portsmouth: “City of Portsmouth Ordinances Chpt. 3. Public Health, Art..IV: Noise

³¹⁸ “A-weighting is applied to instrument-measured sound levels in (an) effort to account for the relative loudness perceived by the human ear, as the ear is less sensitive to low audio frequencies.” For reviews of applications for and deficiencies of using ‘A’ weighted dB measurement see <http://en.wikipedia.org/wiki/A-weighting> and “A-weighting in detail” (<http://www.lindos.co.uk/cgi-bin/FlexiData.cgi?SOURCE=Articles&VIEW=full&id=2>).

Control Sec 3.403.Noises Prohibited - Unnecessary Noise Standard, "The following acts, among others, are declared to be loud disturbing and unnecessary noises in violation of this Ordinance, but said enumeration shall not be deemed to be exclusive, namely": "Q. Blowers: The operation of any noise creating blower or power fan or any internal combustion engine, the operation of which causes noise due to the explosion of operating gases or fluids, unless the noise from such blower or fan is muffled and such engine is equipped with a muffler device sufficient to deaden such noise." (<http://www.cityofportsmouth.com/cityclerk/ordinances/Chapter3.pdf>)

New Jersey

Montclair Municipal Code Chpt. 217 Noise.217-6 Internal Combustion Leaf Bowers.

"A. Purpose and intent. The Township of Montclair hereby finds that unlimited use of leaf blowers powered by internal combustion engines impairs the economic and social welfare, health, peace and quality of life of persons residing in Montclair. The purpose of this section is to minimize the adverse impact of such equipment by restricting its use within the Township.

B. Hours of use. Leaf blowers powered by internal combustion engines shall not be operated in the Township of Montclair except as follows:

- (1) On weekdays between 8:00 a.m. and 6:00 p.m., except that leaf blowers may be used by an occupant or owner of the premises between 8:00 a.m. and 8:00 p.m. on weekdays.
- (2) On Saturdays between 9:00 a.m. and 6:00 p.m., except that leaf blowers may be used by an occupant or owner of the premises between 9:00 a.m. and 8:00 p.m.
- (3) On Sundays and the following holidays, between 10:00 a.m. and 5:00 p.m.: Good Friday and Thanksgiving.

C. Limitation on use of leaf blowers. The operation of leaf blowers shall be limited in each calendar year to the time period between March 1 and June 30, inclusive, and between October 1 and December 15, inclusive. The Emergency Management Coordinator shall have the authority to extend or modify such dates when extreme or unusual weather conditions warrant.

D. Mufflers. It shall be a violation hereof to operate any leaf blower powered by an internal combustion engine in the Township of Montclair without a properly functioning muffler.

E. Responsibilities of property owners, business operators, landlords and tenants. Property owners, business operators, landlords and tenants of a property shall each have all the duties and responsibilities prescribed in this chapter, and no property owner, business operator, landlord or tenant shall be relieved from such duties or responsibilities by reason of the fact that the other of them or the occupant is also responsible therefor and in violation thereof.

F. Emergencies. The Emergency Management Coordinator is authorized to suspend any one or more of the provisions of this section for a period of 24 hours or more whenever such Coordinator determines that an emergency situation exists in the Township. Such suspension may be renewed each day during the continuance of such emergency.

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New York

Bronxville: “prohibits the use of gasoline-powered leaf blowers between June 1 and September 30 and carries a mandatory fine of \$250 for the first violation, a mandatory \$500 fine for a second violation committed within 365 days of the first offense, and a mandatory fine of \$1,000 for the third or subsequent offense committed within 365 days of the first offense.” (http://www.myhometownbronxville.com/index.php?option=com_content&view=article&id=3266:village-board-of-trustees-bans-gasolinepowered-leaf-blowers-with-stiff-fines-during-summer-months&catid=5:bronxville-govthist&Itemid=5)

Dobbs Ferry: Ordinance 234-26: "Unnecessary noise. It shall be unlawful for any person to make, continue or cause to be made or continued any of the following acts producing audible sound, which are hereby declared to be loud, disturbing and unnecessary noise in violation of this article: L. Leaf blowers and outdoor power tools.

[Amended 5-13-2008 by L.L. No. 4-2008; 11-12-2013 by L.L. No. 9-2013]

(1) The use of all leaf blowers, excluding electric-powered, between March 15 and May 1 and September 15 and December 15, and then only from 8:00 a.m. until 6:00 p.m. on Monday through Friday and 10:00 a.m. until 5:00 p.m. on Saturday, Sunday and holidays.

(2) The operation of any engine-driven power tool or motorized equipment before 7:30 a.m. and after 6:30 p.m., Monday through Friday, and before 9:00 a.m. and after 5:00 p.m. on Saturdays, Sundays and legal holidays is prohibited, except that grass may be cut with an internal combustion engine lawn mower by the occupant of the premises on any day between the hours of 5:00 p.m. and 8:00 p.m. Any such tool or equipment shall be properly equipped with a muffler or other properly installed manufacturer-approved noise-reduction device so designed and in such condition as to prevent unnecessary noise and to prevent a public nuisance in its operation.

(3) Promulgation of additional rules and regulations. The Village Administrator is authorized to promulgate rules, regulations and standards applicable to the above power tools and equipment in an effort to control such noise and lessen the effect of that noise on the quality of life of the Village. Such rules shall not become effective until approved by the Village Board of Trustees.

(4) Exceptions to this subsection:

(a) Golf course operations, municipal and school employees while in the performance of their regular duties beyond 100 feet from the nearest residence.

(b) Utility companies, municipal and school employees or property owners and/or their subcontractors while performing emergency repairs.”

Eastchester Environmental Committee Resolution 20101; Resolution by the Eastchester Environmental Committee for the Limited Use of Power Tools for Yard Work and Gardening, http://eastchesterenvironmentalcommittee.com/uploads/Eastchester_Environmental_Committee_Resolution_2010-1_Leafblower_Restrictions.pdf

Nyack: Resolution by the Eastchester Environmental Committee for the Limited Use of Power Tools for Yard Work and Gardening (<http://nyack-ny.gov/download/issues/leafblowers>)

Sleepy Hollow: Recommendation on the Seasonal Regulation of Leaf Blowers of Sleepy Hollow Environmental Advisory Council, May 16, 2010 (<http://sheac.wordpress.com/leaf-blowers/>)

Westchester Cty.: Sec. 863.327. - Leaf Blowers; Licensee Requirements. “Effective January 1, 2009, no licensee engaged in the business of landscaping, gardening, arboriculture, or any similar outdoor vocation, nor its agent, affiliate or employee, shall operate a leaf blower that does not meet EPA Phase 2, 2007 exhaust emission standards or that does not operate in accordance with manufacturer's instructions or specifications.”

Yonkers: Yonkers City Code Section 91-31. “In 2007, the City of Yonkers enacted a Leaf Blower Ban which is in effect each year from June 1 through September 30th.

The use of gas-powered leaf blowers is a violation of the Yonkers City Code Section 91-31 and is intended to protect the public health by reducing air pollution.

Failure to comply with the ban is punishable as a Class II offense with fines ranging from \$250 to \$5,000. To report violations during weekday hours of 8:30 a.m. - 4:30 p.m., call Yonkers Code Enforcement at (914) 377-6669. To report violations on evenings and weekends, call the Yonkers Police Department at (914) 377-7900.

A. The operation of a gasoline-powered leaf and garden blower is prohibited from June 1 through September 30 of each year. During times of emergency caused by storm, the Commissioner of Public Works may declare a temporary moratorium on the operations of this provision.

B. The Commissioner of Public Works, through the office of the City Clerk, may, in his discretion and upon application, grant temporary special permits for the temporary operation of one or more gasoline-powered leaf and garden blowers otherwise subject to this section to accommodate special circumstances, including but not limited to remediation of abandoned or neglected properties or the cleanup of temporary work sites, and shall charge and collect a fee of \$35 for each permit so granted.

C. Except as otherwise provided, violations of this section shall be a Class II offense as defined in Chapter 1, General Provisions, Article III, Penalties, § 1-21. Penalties for offenses; lesser included offenses, of this Code.” (<http://ecode360.com/15089766>)

Oregon

The City of Portland, Leaf Blower Regulations²²

“The use of leaf blowers in the City of Portland is regulated through general operating restrictions and noise restrictions.

“General Operating Restrictions

Residential Zones - City code limits daytime use of leaf blowers to 7 am to 7 pm in all Residential Land Use Zones. Use at night in residential zones is prohibited.

“Noise Restrictions –Effective September 1, 2009

The following noise restrictions apply to all leaf blowers operated within the time limits allowed under the general operating restrictions:

From March 1 through October 31st of each year, leaf blowers which are on the City’s certified list of 65 dBA, or quieter, may be operated within the City of Portland. From November 1 through February 28th of each year, leaf blowers which are on the City’s certified list of 70 dBA, or quieter, may be operated within the City of Portland. Leaf blowers that are on the certified list of 65 dBA, or quieter, may be operated within the City of Portland year round.”

7. Fact Sheets, Press Releases and Commentaries

As previously noted: “Leaf blowers create unnecessary noise and air pollution, endangering you, and the community. Mount Sinai School of Medicine’s Pediatric Environmental Health Specialty Unit says gas-powered leaf blowers pose multiple

²² <http://www.portlandonline.com/auditor/index.cfm?a=18498&c=28709>

health threats. They include spreading airborne particles, which can provoke asthma and other respiratory diseases, and potential pollutants like ozone, carbon monoxide, nitrogen oxides and hydrocarbons. Hearing damage from the engine noise and eye injuries from pebbles and twigs propelled by blowers are also cited.”³¹⁹

“Diseases directly transmitted by rodents”³²⁰

“(a) Hantavirus Pulmonary Syndrome³²¹

- Rodent(s) involved: Deer mouse, Cotton rat, Rice rat, White-footed mouse.
- Where the disease occurs: Throughout most of North and South America
- How the disease spreads: Breathing in dust that is contaminated with rodent urine or droppings.

“(b) Lymphocytic choriomeningitis, (LCM)³²²

- Rodent(s) involved: House mouse
- Where the disease occurs: Worldwide
- How the disease spreads: Breathing in dust that is contaminated with rodent urine or droppings.

“Some species of rats such as the cotton rat or rice rat are known carriers of hantavirus. Victims may be debilitated and can experience difficulty breathing. Hantavirus is

³¹⁹ *Landscape Leaf Blower Facts*, City of Santa Monica, Office of Sustainability and the Environment (https://www.smgov.net/Departments/OSE/Categories/Landscape/Leaf_Blower_Facts.aspx)

³²⁰ Center for Disease Control: <http://www.cdc.gov/rodents/diseases/direct.html>)

³²¹ Pulmonary Syndrome

³²² <https://www.cdc.gov/vhf/lcm/index.html>

transmitted to humans when they inhale airborne particles from rodent droppings, urine or carcasses that have been disturbed.”³²³

7.1 Bad Air

“With a muzzle velocity of 150 miles per hour, gas blowers blow herbicides, pesticides, and fecal contaminants up from the ground into the air, especially troubling asthmatics and allergy sufferers, and increasing the threat to everyone.

“A gasoline-powered leaf blower generates as much tailpipe emissions in one hour as an automobile does over 100 miles. The difference is that a car emits all that pollution over a big stretch of road, while a leaf blower deposits it all in one back or front yard. A two-stroke commercial blower generates 277 lb. of volatile organic compounds, 825 lbs. of carbon monoxide and 3.3 lb. of particulate per year.”

“Although certainly a conspicuous issue in many U.S. localities, use of leaf blowers has been the subject of particularly intense debate and rule-making in the State of California. As many as 44 California cities have already enacted bans, laws and regulations regarding leaf blower use.

“Why all the concern over a modest-sized, hand held piece of machinery? Well, these devices have become notorious for noisily stirring up dangerous dust including airborne feces, allergens, molds, and pollens. All of these pollutants aggravate allergy and asthma problems. One study conducted by the American Lung Association examined types of materials or toxins found in street dust. Found among the particulates examined were traces of arsenic, cadmium, chromium, nickel, and mercury.

“The Los Angeles chapter of the American Lung Association has produced research to illustrate how leaf blowers generate as much pollution in one hour as a car driven for 100 miles produces.

“At-Risk groups include the elderly with cardio-pulmonary problems; individuals who exercise outdoors, and young infants. Sudden Infant Death Syndrome has been associated with the negative effects and pollutants from leaf blowers according to a 1997 government study; ‘The Relationship between Selected Causes of Infant Mortality and Particulate Air Pollution in the United States’.

“Gasoline powered Leaf Blowers use two-stroke engines that are not only smoky, but induce pollution from the combustion of oil. Emissions from these machines include particulate materials, carbon monoxide, nitrogen oxides, and hydrocarbons (CO, NOx, and HC).

“One of tDocket ID No. EPA-HQ-AO-2021-068:e most disturbing features of leaf blowers is the major contribution that they make to noise pollution. The Zero Air Pollution Los Angeles (ZAPLA) states that leaf blower use at one residence impacts eight to fourteen neighbors. According to the Occupational Safety and Health Administration, the noise induced by leaf blowers at 90 decibels exceeds the threshold of danger at 85 decibels and can seriously impair hearing. Leaf blowers are used mainly in residential areas where many types of residents are exposed to their pollutants and noise. This population includes homemakers, retirees, day sleepers, young toddlers, the ill or disabled, and pets.

³²³ Orkin, <http://www.orkin.com/rodents/rats/rat-borne-diseases/>

“Those at highest risk are the blower operators--gardeners and yard workers, who regularly omit wearing protective headphones and respiratory gear.

“According to one manufacturer’s lobbyist, at a distance of fifty feet, the average blower measures 70-75 decibels. But the World Health Organization states that in order to have a healthy environment daytime noise levels should not exceed 55 decibels. A decibel level of 65 at 50 feet might still be 100 decibels or more next to a gardener’s ear. California is serious about enforcement of leaf blower regulations, with fines ranging from \$50- \$750. In Toronto, Canada the maximum fine is \$5,000.”³²⁴

“Thanks to decades of relentless lobbying by their manufacturers, the two-cylinder engines that drive Leaf blowers have never been regulated by any Federal or State agency. The engines, as a result, are crude, cheap, and inefficient, as well as harmful to the environment and everything living in it. Because they are designed to be air-cooled, the engines release 100% of their tailgate emissions directly into the environment, and since they also burn fuel very inefficiently, a Leaf blower running for one hour emits as many hydrocarbons and other pollutants into the atmosphere as a car driven at 55 mph for 110 miles.

“If that seems extreme, consider that wind blows from the nozzles of these machines at speeds in the range of 180 mph. Subjecting everything at ground level to blasts of hot, dry, hurricane-force winds would be ill-advised at any time, since it cannot fail to injure plants and open pathways for pests and disease, while at the same time aiding and abetting the pathogens by distributing them over the widest possible area. In the summer, though, when the air is hot and the ground is dry and the plants are dehydrated and badly stressed to begin with, subjecting them to tornadic blasts of hot, dry air is, nonsensical, to put it kindly.

“Leaf blowers literally scour the earth: stripping off topsoil, desiccating roots, and killing vital soil-dwelling organisms, while, at the same time, propelling into the air clouds of dirt, dust and dangerous contaminants: volatile compounds, mold and fungal spores, weed seeds, insect eggs, pollen, molecules of the myriads of toxic chemicals people spray and sprinkle on their gardens, trees, and lawns, not to mention bird and rodent feces, and more.

“It goes without saying (but must be said anyway), that Leaf blowers pose the greatest threat to the health and hearing of the untold numbers of landscape workers who use them on a daily basis, in most cases without adequate protective equipment, for intervals that far exceed OSHA guidelines. Unfortunately, the workers themselves tend to exaggerate the benefits and deny the risks of blowing leaves with machines, which they strongly favor over rakes, for reasons that probably have more to do with symbolism than practicality.

“Gasoline-driven Leaf blowers have been banned in scores of California counties, including Los Angeles and hundreds of municipalities across the U.S. and Canada, and none of the horrors that were predicted by landscapers - untidy lawns, escalating costs, declining property values - has ever come to pass.”³²⁵

³²⁴ Leaf Blowers: Stirring Up a Mess (http://www.cleanhouston.org/comments/archives/leaf_blowers.htm)

³²⁵ “Ban Leaf blowers!” Dr. Andrew Weil <http://www.drweil.com/drw/u/id/ART02059>

“Vancouver has become the first city in Canada to ban gas-powered leaf blowers. A full ban takes effect 2004.”³²⁶

“Your local home center is always eager to sell you the latest “labor-saving” device for lawn and garden maintenance. But few inventions in human history are as useless and obnoxious as the leaf blower.

“These contraptions are absurd wasters of energy and are so loud they have been banned by many municipalities. They stir up dirt and dust, and can throw rocks at cars and people.

“Leaf blowers don’t work as well as the humble rake, which is more precise, more tenacious, offers exercise to the user, and won’t tee off the neighbors by accidentally blowing leaves, grass, and dust onto their lawns.

“Next time a salesperson thrusts a leaf blower at you at a garden center, ask to see their rake selection.

“Another reason to blow-off the blower? Calories! You’ll burn 50 more calories per half hour if you use a rake.”³²⁷

“Facts about Power Equipment

“The powerful air stream of a leaf blower can strip the land of topsoil, damage otherwise healthy plants by tearing leaves off branches and spread disease, insect eggs and weed seeds.

“The high-velocity air jets whip up dust and pollutants. The particulate matter (PM) swept into the air by blowing leaves is composed of dust, fecal matter, pesticides, fungi, chemicals, fertilizers, spores, and street dirt which consists of lead and organic and elemental carbon. This can result in health risks for people with asthma or other respiratory health problems.

“The average blower measures 70-75 dB at 50 feet and can reach 90-100 dB at the operator's ear. This high noise level not only poses a danger to the operator but can be disturbing to your neighbors, some of whom may be ill or might work nights.

“Emissions from the two-stroke combustion engine include liquid and solid particulate matter as well as gaseous carbon monoxide, nitrogen oxides, and hydrocarbons.

“Benefits of Human Power

“You will reduce your carbon footprint by eliminating the emissions produced by small engines.

“The exercise will burn calories and contribute to better health.

“Get the whole family involved. The time spent together will have a positive effect on the kids and will teach them the value of working around the house.

“Your neighbors will appreciate the quiet and you and your family will not suffer the side effects that can result from the noise level of small engine machines.

³²⁶ CBC News Canada, Vancouver bans leaf blowers, 16 July 2001 <http://www.cbc.ca/news/canada/vancouver-bansleaf-blowers-1.270990>

³²⁷ Rake for the Planet, http://www.mygreencranford.org/Rake_For_The_Planet.html; Reader's Digest, “What Leaf Blower Makers Don't Want You to Know About Rakes” <http://www.rd.com/home/gardening/what-leaf-blower-makersdont-want-you-to-know-about-rakes/>

“Raking is better for your lawn and garden.

“Save money. A rake cost about \$10 to \$15 and a gas leaf blower will cost \$100 to \$500 plus the cost of gas.”³²⁸

“Hazards of leaf blowing I am impressed by the research study on the leaf blowers done by the Palm Beach State College students and their effort to make a difference for the sake of their community. I want to congratulate the students and their teacher, Edwin Riley, and wish them success in bringing this issue to the attention of the public. Clearly, their study has shown that leaf blowers: Create as much smog as 17 cars. Disperse dust, pollen, spores and other matter into the air, exacerbating allergies, asthma and emphysema.”³²⁹

“City commissioners on Tuesday will consider final approval of changes to the noise ordinance to ban the use of gas-powered leaf blowers within 50 feet of any residence or commercial outdoor dining area.

“The changes would restrict when noisy landscaping equipment (such as lawn mowers, edgers, weed trimmers, electric leaf blowers, chain saws, chippers, stump grinders, pressure washers, and compressors) could be used. The city also would ban the use of lawn-maintenance equipment “in a way that causes objectionable dust or other particulate matter to blow or drift in or through another residential property,” and establishes acceptable decibel limits.

“The amendment would prohibit commercial landscaping companies from using noise-producing lawn maintenance equipment within 75 feet of an occupied home on weekends, and between 6 p.m. and 8 a.m. on weekdays. Residents face less stringent restrictions: non-commercial operation is allowed after 8 a.m. — after 9 a.m. on weekends — until 30 minutes after sunset.”³³⁰

7.2 Leaf Blower Noise and Its Consequences

Sacramento's city code states: "Every person in the city is entitled to live in an environment free from excessive, unnecessary or offensive noise levels." Our General Plan states that the normally acceptable ambient noise level in residential areas is no more than 60 dB; 60-70 is conditionally acceptable; and higher levels are normally unacceptable. The decibel scale is logarithmic--each increase of 10, say 60 to 70, represents a noise 10 times louder.

“The average blower measures 70-75 dB at 50 feet according to a manufacturer's lobbyist (2), thus louder at any closer distance. Leaf blowers are routinely used less than 50 feet from unconsenting (sic) pedestrians and neighboring homes that may be occupied by home workers, retirees, day sleepers, children, the ill or disabled, and pets.

“The World Health Organization recommends general daytime outdoor noise levels of 55 dBA* or less, but 45 dBA to meet sleep criteria (3). Thus, even a 65-decibel leaf blower would be 100 times too loud** to allow healthful sleep (which often takes place

³²⁸ California Environmental Protection Agency (www.nonoise.org)

³²⁹ Hazards of Leaf Blowing, http://articles.sun-sentinel.com/2011-10-17/news/fl-letters-1016-20111017_1_leafblowers-dive-master-veteran-diver

³³⁰ South Miami moves to ban gas-powered leaf blowers, 3 June 2013, Miami Herald <http://www.miamiherald.com/2013/06/03/3431170/south-miami-moves-to-ban-gas-powered.html>

during daytime hours for night workers and others). Noise can impair sleep even when the sleeper is not awakened.

“Acoustics experts say blower noise is especially irritating because of its particular pitch, the changing amplitude, and the lack of control by the hearer (5).

“Blower noise endangers gardeners in other ways as well. According to Dr. Alice Suter, in a 1994 report to the OSHA Standards Planning Committee, there is recent evidence "that high levels of noise and the resulting hearing losses contribute to industrial accidents" and "hearing protection devices...may actually impair work safety under certain conditions...In addition, there is growing evidence that noise adversely affects general health, and the cardiovascular system in particular.”³³¹

³³¹ Leaf Blower Facts on Noise, Citizens for a Quieter Sacramento, <http://www.nonoise.org/quietnet/cqs/leafblow.htm>

8. References and Resources³³²

1. “A Basis for Limiting Noise Exposure for Hearing Conservation”, (http://inspectapedia.com/interiors/Hearing_Consevation.pdf).
2. “A Guide to Developing and Maintaining an Effective Hearing Conservation Program”, (Royster and Royster,,revised March 13, 2012. This Guide is a must read for anyone who works in noisy environments or supervises people who work in noisy environments. ([https:// files.nc.gov/ncdol/osh/publications/ig15.pdf](https://files.nc.gov/ncdol/osh/publications/ig15.pdf)).
3. “A Report to the California Legislature on the Potential Health and environmental Impacts of Leaf Blowers”, California Environmental Protection Agency, Air Resources Board, Mobile Source Control Division, February 2000, (<https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/reports/l828.pdf>).
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Comments for WHEJAC re public meeting 11/17-18/2021

Thank you for this opportunity to make public comment and listening in on the WHEJAC meeting 11/17-18th. I made public comments on Nov. 17th, and would like to recap and complete my comments that I did not have time for within 2-3 minutes allotted. I deeply appreciate all of your efforts and serious consideration, and support your work with expansion of your authority and for building capacity within federal govt. towards implementing and enforcing these policy recommendations, centering equity, across the whole of government. Some recommendations are as follows:

- Create an open website/portal or combination of other accessible means and regional/local networks in each state/territory that can communicate and share information both ways with timely and frequent postings that inform local communities of what WHEJAC is doing, future topics/areas of concern, outreach, active engagement, and to gather feedback as well as new ideas, and connect with grassroots communities, and eventually serving as a potential identifier of community needs for employment in this work.
- Find the budget to create an equity implementation body (hiring many well qualified representatives from the EJ and equity community) in every state and major region/tribal nation, if not already extant, that has combined authority within agencies and across interagency authority to implement and enforce WHEJAC recommendations.
- Allow more insight into development of the EJ and Economic Justice Screening tools such that we, the people, can have input in its conception, design, what indicators are used or not used, and guidance on its use, applications, and continuous improvement. (There are various EJ groups such as the NAACP Centering Equity in Sustainable Building Sector (NAACP CESBS) in private, non-profit, and academic sector that could contribute to this and leverage digital expertise. Utilize the power of GIS mapping to visualize data for ease of prioritization and reporting. Feel free to contact me for more info on other tool equity tool development potential.
- Design the EJ and economic screening tool to be a flexible suite of tools perhaps, with a permanent body to serve all kinds of currently identified and future TBD needs from database consolidation and data vetting/gap analysis, decision-making tool, tracking monitoring and reporting, implementation facilitation and enforcement of Justice40 investment benefits.
- Equally as important, is to see if the tool can potentially serve to track 100% of govt. spending/investments, especially coming out of new legislation appropriations tracking and screening for red flags in the “other” 60% of government spending, to ensure NONE of that funding (as well as Justice40 benefits/investments) goes towards contributing to any of the currently listed 17 items on pg. 59 of your Recommendations, that does NOT benefit communities and actually perpetuates HARMS to all people.

- Please also do pay attention to this other 60% of investments/benefits in regards to “WHOM” is benefitting, especially financially, in order that public monies not further the disparities that divide us, concentrating wealth in the hands of the 1%- - the easily “Injustice 60,” as was coined by the WHEJAC in your last day of public meetings. Kudos to your awareness! (i.e. if you don’t know what constitutes 100% , how do you know what 40% of that is?)
- On page 58 of your Recommendations—please be sure to clarify re item #1: “1. Clean energy projects, including renewable energy and energy efficiency projects.” That “clean energy” is NOT to mis-used to mean “clean natural gas, “or “clean nuclear,” or any other greenwashing meant to obfuscate the underlying source of fossil fuel or other NONrenewable energy source or source that produces toxic by-product/waste.
- To item #1, I would suggest adding something to the effect of “1a. Distributed energy resources in the way of local on-site or community solar PLUS battery storage and local community-scale microgrids.” As a benefit to communities for Recommendation on page 58.
- I would also suggest consideration for adding the following 5 beneficial recommendations to bottom of pg. 58 list:
 - “15. Equitable Building decarbonization/electrification—existing and new buildings”
 - “16. Immediate planning and implementation as possible for Orderly natural gas infrastructure decommissioning, beginning with no new expansion .
 - “17. Federal guidance/regulation to reform of Utility rates that focuses on (fair and affordable) beneficial-to communities/ratepayers alignment with a 100% renewable/clean grid by 2035 with protected JUST Net energy metering (NEM) rates that does not favor profit-making to IOU shareholders or highly paid utility executives. Prohibition of unnecessary fees, charges, and penalties of rooftop solar installations hidden in IOU NEM proposals, protecting energy democracy.”
 - “18. Proactive toxics clean-ups and pollution prevention.”
 - “19. Zero operating carbon and low embodied carbon emissions building projects, if existing building re-use is impossible.”
 - “A-whole- of- government approach to implementation of these Recommendations and Justice40 intent, with “benefits” defined both economically/financially as well as others.
- I would additionally suggest consideration for the following to be added to your page 59 list of recommendations of types of projects that will NOT benefit a community:
 - “18. Net” zero energy or “Net zero carbon” as this can be used to mask actual carbon emissions from natural gas at best, and overproduction and costs to pay for more renewables than necessary, and/or purchase of dubious, impermanent

- “offsets.
- “19. IOU and private utilities allowed to set unfair/unaffordable energy rates, and arbitrary fees, penalties and charges for NEM, exacerbating energy burdens on everyone, especially LMI communities, forever denying energy democracy to a large segment of society.
 - “20. Overlooking screening of ALL government spending to prevent expenditures that are harmful to communities, such as the above items beginning on page 59..”

Again, I want to thank the WHEJAC on their good work thus far. I encourage you to work ever more closely with your interagency partners, CEQ, and GSA, in particular, (although omitted from direct mention/inclusion in this work, for some unknown reason) for its ability to transform and lead by example in the reduction of 40% of our carbon emissions of the building/energy sector, as well as the transportation and industrial sectors. I am hopeful this is only the beginning of our work together towards climate and environmental justice, equity, and belonging in a more perfect democracy through Just Transition.

Sincerely,

Alice Sung, AIA, LEED AP, BD+C, SEA, Principal, Greenbank Associates
**COMMENTS OF CLIFFORD J. VILLA, PROFESSOR OF LAW, UNIVERSITY OF NEW MEXICO,
TO THE WHITE HOUSE ENVIRONMENTAL JUSTICE ADVISORY COUNCIL
NOV. 17, 2021**

Good afternoon. And thank you, distinguished Co-chairs and Members of the White House Environmental Justice Advisory Council.

My name is Cliff Villa, Professor of Law at the University of New Mexico. I was born and raised in New Mexico, and I am delighted to be back home now teaching courses at UNM in the areas of constitutional law, environmental law, and specifically, environmental justice. I am the lead author of a book, [ENVIRONMENTAL JUSTICE: LAW, POLICY & REGULATION](#) (3rd ed. 2020), and the author several academic [articles](#) in the field of environmental justice.

Prior to joining academia, I spent more than 20 years as an attorney with the U.S. EPA, in Washington, D.C.; Denver, Colorado; and Seattle, Washington. In that capacity, I observed a lot of EPA staff with little or no understanding of environmental justice. I tried to remedy that by developing internal training on environmental justice, including a course on *EJ and the Law* and *EJ and Superfund*. I believe that more EPA staff are receiving training now on EJ, but there is still a long way to go in helping EPA staff and managers understand their duties and opportunities for using their existing resources and authorities for pursuing EJ across the EPA regions.

For my part, I am still willing to help provide this training to staff from EPA and any other federal or state agencies. I provided EJ training earlier this year to folks in EPA Region 10 and offered the same to EPA Region 6. And if you’re wondering: no, I don’t charge fees like a private consultant. I’m a teacher and I want people inside every agency to understand what

environmental justice is and how they can help achieve it.

Drawing upon my experience as an EPA attorney, one of my concerns is the impacts of contaminated sites on EJ communities. In New Mexico, we have a listed Superfund site in the town of Española known as the North Railroad Avenue Plume, where groundwater contamination from an old drycleaner operation has lingered for decades, threatening human health and frustrating economic development that is desperately needed in a low-income, largely Latino and indigenous community. Through the assistance of the EPA Office of Environmental Justice, the North Railroad Avenue Plume has recently begun to receive the attention it has deserved for years.

One problem I have consistently observed, however, is the fear of Superfund by state and local agencies. Superfund, the *Superfund*, can and should be understood as a tremendous potential resource for the assessment and cleanup of contaminated sites. I would particularly like to see more use of Superfund removal authority for providing more timely response to community concerns. If I can help provide training or other information about Superfund removal authority to state, local, and tribal agencies and organizations, I would be glad to do it. Just let me know.

Thank you for your time and consideration.

November 18, 2021

White House Environmental Justice

Advisory Council Public Meeting

Public Comment

Gregg Newsom

Detroit, Michigan

This written comment is submitted in addition to my spoken comment made during the WHEJAC public meeting on November 17-18, 2021. Details around this issue are changing rapidly so this comment reflects what I am aware of as of November 18, 2021.

I would like to thank the White House Environmental Justice Advisory Council for this opportunity. I would also like to recognize the environmental justice communities across the country and their righteous appeals to this body. I also want to reflect and lift the commenters from Flint; the latest victims of the discrimination and injustice inherent in the state of Michigan's air quality permitting process and the Michigan Department of Environment, Great Lakes and Energy, or EGLE.

My name is Gregg Newsom and my partner, our 3 young children and I live on the eastside of Detroit. Our house is in what is referred to as the 'impact area' of the newly expanded and massive Jeep Stellantis Detroit Assembly Complex. I am also an organizer with Detroit People's Platform and have been working with my neighbors on Beniteau Street, who live in closest proximity to the plant.

While my family and I live only blocks away from the plant and are impacted by the

expansion, I'm presenting here to support the efforts of my neighbors on Beniteau. It is my belief that if the impact of this site is adequately mediated and remedied for those living right up on the complex, my family and everyone living around the plant will benefit.

Since the expansion was announced in early 2019, EGLE has hosted 3 public hearings and approved 2 air quality permits. My neighbors and I, along with advocates and experts have participated in each public hearing EGLE has hosted.

During these hearings a primary concern, repeated through the public comments is the extreme asthma hospitalization rates in the zip codes around the site. Experts called for environmental, economic and public health impact assessments to be completed before making a decision. Others called out the environmental racism inherent in moving ahead with the expansion in a nonattainment zone for ozone by decreasing emissions at a suburban plant to offset the increase in our 94% African-American, majority Black backyards

A recent [letter to EGLE from elected officials](#) noted that EGLE was aware of a high level of preexisting respiratory conditions in the area before granting permits to the company. Solid data, emotional pleas, and righteous outrage were shared but couldn't be heard. **EGLE considers air quality permits in a vacuum and by doing so makes the residents most impacted invisible.** EGLE's [website reads](#) *"Comments EGLE can consider include technical mistakes, grammar and spelling mistakes, other rules that should be considered, and other items which should be included or removed."* Further, and more to the point, *"Some issues EGLE cannot consider include popularity of the action, emission sources that are not part of the action, indoor air pollution, traffic, hours of operation, noises and lighting, and zoning issues."*

This is where EGLE's inherent race-problem perpetuates itself. How is it possible for our state regulators to protect frontline or environmental justice communities they can't see or hear? The parameters they have established to make their decisions also become the justification of their abuse. They can't consider the national study linking long-term exposure to air pollution and COVID-19 mortality. They can't consider that in the U.S., Black children suffer disproportionately from asthma, and are seven to eight times more likely to die of asthma than white children. The fact that communities of color face nearly 40% more exposure to toxic air pollution than white communities is not just lost on EGLE, it can't be heard.

The new Jeep Grand Cherokee L went into production this summer and residents have reported an increase in odors and health issues since. EGLE has issued multiple violations that stem from their having to respond to resident complaints. Being overwhelmed by paint fumes, burning eyes, itchy throats and headaches, Beniteau residents have been calling the state's Pollution Emergency Alert System (PEAS)

hotline.

On Monday, September 20, 2021 EGLE filed [a violation notice](#) against Stellantis. A [second air quality violation](#) was issued on Monday, October 14th. On Wednesday, November 3rd a [third Violation](#) was issued against Stellantis' Mack Assembly Plant. These violations and the subsequent engineering issues uncovered in the process have not been adequately responded to by EGLE or Stellantis. Jeeps continue to roll off the line and as this statement is being prepared, fumes can still become overwhelming on the street. Residents continue to call in with complaints.

The fact that they are being made to live through violations and over-exposure has led many residents to believe that EGLE exists only to facilitate the operation of polluting industries rather than to protect the most vulnerable and disproportionately impacted in Michigan.

Earlier this month, on November 8, 2021, my neighbors on Beniteau filed a [Title VI Civil Rights complaint](#) against EGLE with the EPA. The complaint focuses on the racial disparities in the state's permitting process and details the impact of EGLE's decisions on the residents who live closest to the plant. **"When my eyes start to burn, I start to become more afraid of all the things I can't smell than those that I can"** one of my neighbors shares in the complaint.

Another neighbor on Beniteau shares **"The migraine headaches, and the burning in the eyes, and tightness in my chest... I just know when I'm out too long, I get that way, but I can't say today is going to be worse than tomorrow. I know yesterday it was just too much. I was crying."** I am also submitting the full Title VI complaint with this comment. I encourage council members to read these stories from residents who have been greatly impacted by the failure of state regulators.

The complaint states that: *"[t]he decisions by Michigan's Department of Environment, Great Lakes, and Energy (EGLE) allowing Stellantis to significantly expand its facilities continues the discriminatory legacy of requiring communities of color to bear the disproportionate burden of the industrial pollution generated by all of society. Unfortunately, the Stellantis Complex ("Facility") does not exist in isolation."*

Last Minute Update: Based on public pressure building around the violations and the Title VI Civil Rights complaint on November 18, 2021 EGLE issued a [press release](#) stating that they were going to fine Stellantis. While a step in the right direction, the statement is extremely non-committal.

Residents' current post-violation needs include:

- **Immediate emergency relief** including but not limited to emergency housing, windows, roof repair, weatherization, HVAC improvements, air purifiers, filters, public education, medical and health services.
- **Remedies** that include an “out of the box thinking” Supplemental Environmental Plan (SEP) that adequately responds to resident need for home repair, voluntary relocation and others based upon individual assessment.
- **Rapid** response through a fast-tracked enforcement process with EGLE and the EPA on the Title IV Complaint.
- **Environmental, health and economic impact assessments** must be conducted to determine the most impacted and most vulnerable. Residents have requested individual assessment to determine what will be needed to make their homes safe to live in or for successful voluntary relocation. Assessment, which was not included as part of the permitting process, is essential to correcting course and determining adequate remedies. It is also vital that assessment be considered as part of EGLEs ‘job’ and not as a remedy. Assessment is a tool to be used to determine remedies.

To conclude, we live in a majority Black city that has been subject to the suspension of democracy through emergency management and economic restructuring through municipal bankruptcy. In Detroit we see violence against Black bodies, families and communities show up every day in public policy and decisions made by those in power.

Detroiters have witnessed this through mass water shutoffs, mass foreclosures and evictions, and through a massive redistribution of public wealth and resources into the hands of developers that are predominantly wealthy and white and to global corporations like Ford and Stellantis.

The fact that decision makers and regulators approved this project based upon economic promises and flawed engineering models rather than the environmental, health and economic impacts of those most directly impacted has led to this situation; **Detroiters are being made to live in and through violation after violation.**

I ask your support in addressing the injustice inherent in the states’ permitting process and in pushing for relief and remedy for Beniteau residents and anyone whose air quality and quality of life has and is being impacted by these failures. Again, I would like to thank the White House Environmental Justice Advisory Council for this opportunity.

Sincerely,
 Gregg Newsom
 Stellantis Impact Area Resident
 Detroit, Michigan

- ["I don't want to die for Jeep" Complaint Info Sheet](#)
- [Read the Civil Rights Complaint](#)
- [Beniteau Violations](#)
- [Beniteau Statement and Demands](#)
- [Beniteau in the News](#)
- [Beniteau Timeline](#)
- [Beniteau Stories](#)

Silver Valley Community Resource Center

PO Box 362

Kellogg, ID 83837 Phone: 208-784-

8891

svcommunityresourcecenter@gmail.

com website:silvervalleyaction.org

Nov. 3, 2021

Comments for White House Environmental Justice Advisory Council Public Virtual Meeting

Nov. 17-18, 2021

Registration: <https://www.epa.gov/environmentaljustice/white-house-environmental-justice-advisorycouncil>

Docket ID No. EPA-HQ-OA-2021-0683 at <http://www.regulators.gov> Email comments: whejac@epa.gov, ATTN: Docket No. above

To the White House Environmental Justice Advisory Council;

EPA has failed to cleanup and protect human health at the Bunker Hill Superfund site, Kellogg, Id. The Bunker Hill Superfund site was first designated the 2nd largest National Priority Listed, (NPL) in the nation in 1983. In 2000, Reg. Ten decided without notice, to extend the Superfund site boundaries. The BHSS boundaries are the Idaho/Montana border into Washington State by way of downstream contamination of the Coeur d'Alene River, lakes, streams to the Spokane River before emptying into the Columbia River Basin that empties into the Pacific Ocean. Kellogg Idaho is the epicenter of the now 1500 sq. mile Superfund site. A century of lead and heavy metal contamination into the air, water, homes, schools and environment as EPA continues to violate mandated CERCLA, Comprehensive, Environmental, Response, Compensation, and Liability Act laws. *NWTCC website; "Children Run Better Unleaded" U of Washington, Superfund Research Program*

For 35 years the Silver Valley Community Resource Center, (SVCRC) has conducted unlimited education, outreach, good faith, resources, grassroots, community documentation,

overwhelming scientific data from the world's most respected lead health experts to work with the government agencies headed by Reg. Ten EPA. "We have only been demonized for our work" *Children Run Better Unleaded member*. The non-profit organization continues to this day to take the "high road" resulting in unwavering support for two issues for cleanup of the environment and lead health conditions. One of the most significant acts of good faith by SVCRC was the creation of the Idaho Lead Oversight Committee gathering statewide groups as HeadStart, WIC, Medicaid, International lead experts, Dr. John Rosen, Dr. Steven Gilbert, Dr. Bruce Lanphear, Dr. Herbert Needleman, Dr. Sue Moodie, local experts for the purpose of offsetting contempt of court charges and begin working together to test children in the nations largest lead Superfund site and the state of Idaho. US District Court for Idaho, Consent Decree and Judgment, Case no. CIV 00-578-S-MHW, 2003. The committee has been in existence for 16 yrs. Accompanying the request to remove the Reg. Ten EPA project manager for his attacks of community outreach was the dismissal of a Panhandle Health employee who conspired dispersal of misinformation to lead poisoned families, local medical facilities, personnel, local Chamber groups and more. The elimination of two dangerous conspirators and others removed after being identified for their role in covering up the facts of failure, it is time for leaders, agencies to include SVCRC, immediately begin work for reparation, solutions when implemented can be used to end childhood lead poisoning not only in the nation's largest lead Superfund site, but communities without a voice throughout the world.

The epicenter, original 21 sq. miles of site was once the Silver Capital of the World. The area is in isolated North Idaho a politically conservative state where the influence of the polluters has been a priority in toxic communities across the country, abided by EPA. Despite millions likely a billion dollars spent digging up yards in the site, it remains a disproportionately poor, vulnerable underserved community. Six generations are living with chronic lead health conditions with not one individual has ever received any diagnosis or treatment. Johns Hopkins University, "Community and family level factors influence care-giver choice to screen blood lead levels of children in a mining community". Other than the SVCRC's Children Run Better Unleaded families where the mandated laws for lead testing of children were conducted, there is no proactive diagnosis or treatment taking place. Studies of interior of homes confirms there is more lead in them than yards being dug up, resulting with EPA creating a Record of Decision, ROD to address this major pathway of lead exposure. Each time SVCRC the subject is approached with Reg. Ten, staff snicker and do nothing.

Further complications of the health of the people in the BHSS are now present with the added failure of COVID education, testing, vaccinations. The State of Idaho received \$1.24 billion dollars COVID stimulus funding. Long term lead health conditions include heart, carcinogenic, respiratory, kidney failure all are health issues related to COVID. Forty-six percent of the population of the people in the Kellogg, Idaho, epicenter of the Bunker Hill Superfund site are 50 yrs. or older. The Governor of Idaho is well informed of this health neglect. SVCRC spent two years to establish a meeting with him that was agreed to this past Spring. Overnight, Jake Garringer, Governor Little's North Idaho staff representative cancelled the meeting. Governor Little has been further made aware during an AARP phone Idaho town hall meeting related to COVID needs throughout Idaho. For two weeks individuals in the Silver Valley were able to receive walk in vaccinations at Wal-Mart. After that short period in which numerous

individuals took advantage of the word went out that signup on the store website link for appointments became mandatory. Due to ongoing lack of phone, internet service many do not have computers or internet service in Shoshone County in addition to not have the ability, resources to drive. It became very difficult for anyone in the area to get any information let alone testing, vaccinations. *“Idaho has lowest number of COVID vaccinated...in the nation” KSPS radio. “COVID cases caused by Delta variant continue to surge in North Idaho” Sept. 2021 Spokesman Review* Not only is their deliberate lack of lead testing, diagnosis, treatment of lead COVID, mandatory lead testing and treatment prevails.

Smoke from major wild forest fires in the area caused further lung health complications as they do every summer. One fire began in the Northern towns of Murry and Pritchard in early July and burned until rains fell in September. There were several days officials posted warnings of evacuation to homeowners. These same days breathing and visibility were severely limited. Additional environmental climate devastations take place on a regular basis, in February this year a county wide windstorm disaster knocked out electricity power, heat, food for more than a week, many who are on oxygen had to be transported to Coeur d’Alene, 45 miles away, the local hospital was without electricity also. County Commissioners have no interest in any kind of disaster relief. SVCRC reached out to the Red Cross as well as other social service agencies without the assistance of the County the community went without assistance of any kind to repair the destruction that continues. There is no indication as the collusion and funds continue to supplement but not address lead health concerns in the Bunker Hill Superfund site.

Reg. Ten EPA staff until recently contributed demonization of those who spoke out especially SVCRC, CRBU members even ATSDR staff who were targeted, contacted, threatened to “keep away from SVCRC, to not even mention the word lead” These are further actions reinforcing suppression, human and civil rights and the overall health and cleanup failure at the site. Like Flint, Michigan, where government officials covered up the lead exposure to that community. Only, the Bunker Hill coverup has lasted three decades longer.

To address the missing decades of lead testing crisis in the Bunker Hill Superfund site, in 2020, SVCRC filed an investigation request calling upon ATSDR/CDC to determine why and where the statistical data is in Idaho of testing for lead in *children anywhere to be found*. Currently SVCRC/CRBU members are awaiting to learn of the investigation results. Members and advocates throughout the 2 State superfund site have hopes that recommendations will made for EPA to cooperate with the orders for settlement funds to establish the Community Lead Health Center. The highest lead levels ever recorded in the US were from the first year, approximately mid 1970’s, testing of children when Health and Human Services found their way into the community. At the end of the year, the testing was turned over to the Idaho Dept. of Health and Welfare. No data has been filed since. No children have ever received any medical help assistance.

Conclusion of a recent nationwide study of BLL in children and demographic’s finds;

“To eliminate the effect of lead exposure on all children’s health, the US must focus efforts to prevent children from being exposed to lead, beginning in areas where risk is highest. Children, families, and society achieve the most benefit from interventions that ensure that the US

mitigates lead exposures in homes and other settings before a child is ever exposed. To our knowledge, this is one of the first comprehensive national analyses investigating the association of lead exposure with individual- and community-level factors. In adjusted models, the proportions of children with detectable [$> 1 \mu\text{g}/\text{dL}$] and elevated BLLs [$>5 \mu\text{g}/\text{dL}$] increased significantly among children with public insurance and for progressive quintiles of communities with pre-1950s housing and poverty rates. We did not see consistent associations between lead exposure and elevated BLLs in children residing in zip codes with predominantly Black or Hispanic and Latinx populations. There has been significant progress in reducing lead exposure throughout the country; this study demonstrates, however, that there is still substantial individual- and community-level disparities that have important implications for addressing childhood lead exposure.” <https://www.thefigtree.org/oct21/100121silvervalleycrbu.html/>

Two solutions remain steadfast, supported by thousands of affected citizens living in the Superfund site; 1) Shut down of the 20-acre toxic waste dump at the Old Mission of the Sacred Heart a National Historic Landmark, built on the Native American ancestral land of the Coeur d’Alene Tribe, that sent 160 metric tons of lead and heavy metal contamination downstream in one day of flooding after the first year of dumping at the site. US/GS report Jan. 2010. The dozen or more toxic waste dumps in the upper basin are in violation of mandated CERCLA law, Clean Air, Clean Water Acts. In the case of the Old Mission 20-acre toxic waste dump, EPA has deliberately contributed to downstream contamination of the Coeur d’Alene River and tributaries. Dumping continues to this day. Idaho has no regulations overseeing dumping of any contamination. The repositories are being landscaped into precious wetlands. *Photos are available observing the debris and other contamination being dumped in the repositories.* Wildlife, children, tourists, recreationists continue to be exposed. 2) Thousands of affected citizens living in the Bunker Hill Superfund site, support a Community Lead Health Center, (CLHC). The Judge presiding over the 2007 Hecla settlement lawsuit encouraged SVCRC to seek settlement funds now amounting to \$500,000,000 from EPA for the CLHC. To date, Reg. Ten has failed to work with SVCRC. On May 12, 2021, the organization succeeded in holding a meeting with Sen. Mike Crapo, Idaho a long-time community involvement advocate for SVCRC’s work and committed to acquire funding for the reparation of health the CLHC will provide.

In conclusion, thank you to the White House Environmental Justice Committee for the opportunity for the first time in years to share a small portion of the problems taking place in the Bunker Hill Superfund site, North Idaho, Washington State.

SVCRC members look forward to working with the needs identified and sanctioned by the Mission of EPA to protect the environment and human health.

Sincerely,

Jeff Bergstrom, SVCRC President

Barbara Miller, SVCRC Director

Cass Davis, Carla Bassemier, Robert McCroskey, SVCRC Board

Members Betty Belisle, Children Run Better Unleaded member

CC: Intermountain Fair Housing Council, Idaho ACLU, Robert Huntley, Attorney at Law

December 02, 2021

Via e-mail

White House Environmental Justice Advisory Council
U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW Washington,
D.C. 20460 whejac@epa.gov

Dear White House Environmental Justice Advisory Council members:

The undersigned thank the White House Environmental Justice Advisory Council (WHEJAC) for your role in ensuring that the Biden Administration places the concerns of impacted and underrepresented communities front and center. WHEJAC plays a unique and important role, as community members and environmental justice champions who have the ear of various arms of the Administration. Because of this unique position, we hope that WHEJAC will be able to communicate to President Biden, Vice President Harris, the Council on Environmental Quality (CEQ), and the White House Interagency Council on Environmental Justice (Interagency Council) the necessity of not squandering the unique moment we find ourselves in regarding equitable access to clean water. With lead service line replacement enjoying bipartisan support, unprecedented bipartisan congressional investment in water infrastructure improvement, and EPA and President Biden both acknowledging the role of infrastructure in climate resilience, the administration must recognize that now is the time to require our federal agencies to take bold, decisive action. Indeed, EPA will announce no later than December 16, 2021 whether it will keep or change the Trump Administration's ineffective—and in some instances regressive—changes to the Lead and Copper Rule, which is supposed to control the level of lead in drinking water.

I. Accountability for Federal Water Infrastructure Investments

This WHEJAC meeting was held on the heels of the passage of the Bipartisan Infrastructure Deal (BID), which contains unprecedented federal investment in water infrastructure. We hope that the “Build Back Better” bill, passed through reconciliation, will build on the foundation set forth in the BID. Firstly, we want to echo the requests of the Administration previously issued by WHEJAC in May 2021 related to Justice 40. Secondly, we urge WHEJAC to request that all relevant agencies commit to prioritizing disadvantaged communities for receipt of funds from the BID.

In several BID sections, including the funds for EPA's Drinking Water and Clean Water State Revolving Funds (SRFs) and for lead service lines, at least 49 percent of the funding must be provided as grants or 100 percent forgiveness of principal as “subsidy for eligible recipients.” We believe that the aforementioned 49 percent of funding must be provided as subsidy for

“disadvantaged communities” under the relevant statutes³³³ and EPA should act accordingly. Additionally, the Safe Drinking Water Act and Clean Water Act both were amended by the BID to increase the *minimum* amount of funding that goes to disadvantaged communities as grants and 100 percent principal forgiveness.³³⁴

However, for some of the other categories of water infrastructure appropriations, the BID does not explicitly require prioritization of disadvantaged communities for receipt of funds, or even for receipt of grants in particular. Because there are numerous agencies involved, and state governments also play a significant role in distribution of funds, this Administration must think creatively about financial incentives and levers to ensure these funds primarily benefit disadvantaged communities. In a call with advocates on Friday, 11/12/21, EPA Assistant Administrator for Water Radhika Fox indicated EPA would be taking measures itself and engaging states to overcome obstacles to funding for disadvantaged communities. EPA and states must ensure that disadvantaged communities have technical assistance to apply for funding and that there is equitable disbursement of funds. Transparency in that process will be critical to ensuring the Administration does not repeat the mistake of past infrastructure investments that have disproportionately benefited already wealthy and healthier communities. We urge that WHEJAC specifically recommend that EPA adopt and fund such measures and issue strong guidance to states in carrying out the BID to ensure that disadvantaged communities get the technical assistance they need to apply for funds and are prioritized for funding, as intended under the new statute.

It is crucial that agencies identify points of influence wholly under their control for implementation of water infrastructure funding. An example would be from the May WHEJAC recommendations relating to the mapping, monitoring, and inventorying of homes with lead service lines, decentralized wastewater systems, and other failing infrastructure. We encourage

³³³ The appropriations for the State Revolving Funds are allocated on page 971–72 of H.R. 3684 (The Infrastructure Investment and Jobs Act). In both subsections (2) and (3), the text states that 49 percent of the funds made available to each State (DWSRF) shall be used by the State to provide “subsidy to eligible recipients” in the form of assistance agreements with 100 percent forgiveness of principal or grants (or any combination of these). The SDWA authorizes such “subsidy” of 100 percent principal forgiveness or grants only for “disadvantaged communities,” as defined in the Act. 42 U.S.C. § 300j-12(d). Thus, those communities are the only “eligible recipients.” Other DWSRF funding is for loans that must be repaid. *See* SDWA §§1452(a)(2)(A) & (F), 42 U.S.C. §§ 300j-12(a)(2)(A) & (F). Congress demonstrated that they indeed intended that disadvantaged communities would be receiving these funds by stating that such additional subsidies would be provided “*notwithstanding section 1452(d)(2) of the Safe Drinking Water Act (42 U.S.C. 300j-12).*” Section 1452(d)(2) of the SDWA places a *ceiling* on the percent of funds available used for additional grants or principal forgiveness for disadvantaged communities. Thus, H.R. 3648 provides that that ceiling does not apply to the 49 percent of funds specifically allocated to disadvantaged communities under it. The nearly verbatim language for the CWSRF on page 971, paragraph (1) of H.R. 3684 also indicates that the CWSRF additional subsidization provisions are intended to help disadvantaged communities with the ceiling on such funds waived. *See* 33 U.S.C. § 1383(i) (Clean Water Act section 603(i)).

³³⁴ H.R. 3684, Section 50102(b)(2)(B) (expanding to a minimum of 12 percent of the DWSRF subsidies for disadvantaged communities) and Section 50210(a)(1)(B)(i-ii) (explaining that a minimum of 10 percent of CWSRF shall go to disadvantaged communities or certain green infrastructure projects).

subsequent WHEJAC recommendations to build on that, pushing the Administration to leverage federal authority in enforcement and compliance as well as authority for civil rights investigations to ensure that funding is not misdirected or bottlenecked on its way to the communities that need it most.

II. Proactive Lead Service Line Replacement and Lead and Copper Rule Overhaul

As you recognized in your May 2021 recommendations, “[t]he human toll of inequality is shown in . . . disproportionately high rates of lead poisoning in children of color.”³³⁵ The Lead and Copper Rule (LCR or Rule) has done nothing to address that disparity. The Rule is fundamentally broken and has failed communities for the past 30 years. Cynthia Giles, the former Assistant Administrator for EPA’s Office of Enforcement and Compliance Assurance from 2009 to 2017, recently urged EPA to overhaul the LCR noting “the unreliability of the reported lead levels and the widespread violations” of the Rule, and “mountain of evidence that violations of the lead [and copper] rule may be as much as ten times what EPA’s data claims.”³³⁶ While it is widely understood that formula-fed infants under six months old can receive the majority of their lead exposure through drinking water,³³⁷ the unreliable data regarding lead levels in drinking water has often been the basis for many—including academics and government agencies—to incorrectly overlook or downplay water as a possible significant source of lead poisoning.⁶

We want to acknowledge the important recommendations on the Lead and Copper Rule provided by WHEJAC that would help reduce that disparity. Recommending: proactive lead service line replacement (LSLR); a prohibition on partial replacements; reversal of the Trump Administration’s slow-down of the rate of LSLR; incentivizing state programs to combat lead in drinking water in schools and childcare facilities; incentivizing prioritization of contractors from communities of color; and improved monitoring and databases are all crucial steps for EPA to

³³⁵ White House Env’tl Just. Advisory Council, Final Recommendations: Justice40 Climate and Economic Justice Screening Tool & Executive Order 12898 Revisions 77 (2021), <https://www.epa.gov/sites/default/files/202105/documents/whiteh2.pdf>.

³³⁶ Comments by Cynthia Giles, *Comments on Proposed Revisions to the Lead and Copper Rule*, Docket ID No. EPAHQ-OW-2017-0300 (Feb. 4, 2020) at 8; see also Erik Olson & Kristi Pullen Fedinick, Nat. Res. Def. Council, *What’s in Your Water? Flint and Beyond: Analysis of EPA Data Reveals Widespread Lead Crisis Potentially Affecting Millions of Americans* (2016), <https://www.nrdc.org/sites/default/files/whats-in-your-water-flint-beyondreport.pdf>.

³³⁷ See Valerie Zartarian et al., *Children’s Lead Exposure: A Multimedia Modeling Analysis to Guide Public Health Decision-Making*, 125 *Env’tl Health Perspectives* 9 (2017), <https://ehp.niehs.nih.gov/doi/pdf/10.1289/EHP1605>. ⁶ See Rebecca Renner, *Out of Plumb: When Water Treatment Causes Lead Contamination*, 117 *Env’tl Health Persps.* (2009); see also U.S. *Env’tl Prot. Agency*, EPA-747-F-01-004, *Fight Lead Poisoning with a Healthy Diet 2* (2019), https://www.epa.gov/sites/default/files/2020-01/documents/fight_lead_poisoning_with_a_healthy_diet_2019.pdf; *In re Clarksburg Water Board*, CWA-03-20210110DS (U.S. *Env’tl Prot. Agency* July 14, 2021) (finding dangerously high levels of lead in drinking water in homes after Childhood Lead assessment found elevated blood lead levels in three children).

take moving forward.

Since EPA has stated that it will be announcing its decision as to whether to overhaul the Lead and Copper Rule in the next few weeks, and the White House will be asked to clear any decisions on this matter, we also urge you to further call for EPA to do the following:

- Mandate the proactive full LSLR to be completed on a mandatory schedule in no more than 10 years for all water systems, at no cost to the consumer, with prioritization for communities disproportionately exposed to lead from other sources.
- Require corrective action for all water systems at no higher than 5 ppb, based upon rigorous revised monitoring requirements designed to detect high lead levels.
- Create strong incentives for water systems to help schools and childcare centers install certified point of use filters for lead removal, with frequent and comprehensive mandatory testing of all water outlets as an alternative.
- Require comprehensive and effective communication about the dangers of lead, the prevalence of lead in drinking water, and steps that can be taken to reduce exposure so that families can take appropriate actions to protect their children. Impose consequences for misleading information and enhanced communication when high lead levels are discovered.
- Require certification by senior management of water systems, subject to criminal penalties, that all components of LCR were complied with, and dramatically increase enforcement of the LCR.

With the BID providing \$15B in funding for LSLR, the issue of LSLR enjoying bipartisan support, and EPA’s draft Strategy to Reduce Lead Exposures and Disparities in U.S. Communities committing to “[r]educe lead exposures locally with a focus on communities with disparities and promote environmental justice” and to “[r]educe lead exposures nationally through protective standards, analytical tools, and outreach,”³³⁸ the *only* appropriate action for EPA to take is to completely overhaul the current LCR as set forth in WHEJAC’s May 2021 recommendations and the additional ones set forth above. President Biden, Vice President Harris, EPA Administrator Regan, and CEQ Chair Mallory must ensure that half measures are avoided and that a new rule becomes the gold standard in justice oriented environmental protection.

Respectfully submitted,

Julian Gonzalez
Legislative Council, Policy and Legislation, Earthjustice

³³⁸ U.S. Env’tl Prot. Agency, *Draft EPA Strategy to Reduce Lead Exposures and Disparities in U.S. Communities* 3 (2021), <https://www.epa.gov/system/files/documents/2021-11/updated-public-comment-draft-lead-strategy-11-162021.pdf>.

Erik Olson

Senior Strategic Director, Health & Food, Natural Resources Defense Council

Organizational Signatories

A Community Voice - Louisiana

Alabama Rivers Alliance

Alaska Community Action on Toxics

Ashurst Bar/Smith Community Organization

Blue Ridge Environmental Defense League

Buxmont Coalition for Safe Water

Cahaba River Society

Cahaba Riverkeeper

Center for Biological Diversity

Center for Environmental Health

Center for Neighborhood Technology (CNT)

Childhood Lead Action Project

Choctawhatchee Riverkeeper

Citizens for Alternatives to Radioactive Dumping (CARD)

City of Trenton (NJ) / Trenton Water Works

Clean Water Action

Coalition on Lead Emergency

Conservation Law Foundation

Conservation Voters of Pennsylvania

DC League of Conservation Voters

Defend Our Health

East Chicago Calumet Coalition Community Advisory Group (C.A.G.) of USS Lead Superfund Site

East Trenton Collaborative

Environmental Defense Fund

Faith in Place, IL Affiliate of Interfaith Power and Light

Flint Rising

Freshwater For Life Action Coalition

Freshwater Future

Highland Park Human Rights Coalition

Hollis Environmental Consulting Services, LLC

Illinois Environmental Council

Immigrants & Minorities Unify Services Association

International Society for Environmental Epidemiology, North American Chapter

Isles, Inc.

Little Village Environmental Justice Organization

Merrimack Citizens for Clean Water

Metropolitan Planning Council
Michigan League of Conservation Voters
Michigan Welfare Rights Organization
Milwaukee Riverkeeper
New Jersey Future
New Jersey Latino Action Network
New Jersey League of Conservation Voters
New Jersey Policy Perspective
New York League of Conservation Voters
Newark Water Coalition
Newburgh Clean Water Project
NJ Work Environment Council
North Carolina League of Conservation Voters
Ohio Environmental Council
Oregon Environmental Council
Portland Advocates for Lead-free Drinking Water
Protect Our Aquifer
River Guardian Foundation
Rural Coalition
Safe Water Engineering LLC
Saint Joseph's Carpenter Society
San Francisco Bay Physicians for Social Responsibility
Shelby County Lead Prevention & Sustainability Commission
Sierra Club
St. Francis Prayer Center
Tennessee Riverkeeper
The Alliance for the Great Lakes
United Parents Against Lead Water Equity
& Climate Resilience Caucus Water You
Fighting For?
Waterkeeper Alliance
Waterkeepers Chesapeake
Waterway Advocates
Westfield Residents Advocating For Themselves (WRAFT)
Zero Waste Washington

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17 November, 2021

White House Environmental Justice Advisory Council (WHEJAC)
Docket Number EPA-HQ-OA-2021-0683 whejac@epa.gov

Re: Comments to the WHEJAC

Thank you for the opportunity to offer comments to the WHEJAC. Healthy Gulf³³⁹ and the undersigned would like to speak up in defense of the marginalized communities of people of color and low incomes on the Gulf Coast, from the Florida Keys to Brownsville. In so many of these Gulf Coast communities, as Dr. Wright spoke out about in the WHEJAC meeting on 11/17/21, residents are the direct descendants of enslaved people, people whose lives and labor were exploited and extinguished in the name of white greed and supremacy. Other communities are made up of Indigenous People who are descended from people that were forcibly driven off the land and stripped of their rights. Some Indigenous ancestors were pushed to live in the bayous and wetlands from other parts of the Gulf Coast region during the Indian Removal Era. All of these communities of marginalized people are now seeing their homes and sacred sites swallowed by sea level rise and ravaged by hurricanes year after year. These and other communities of color continue to be subjected to environmental racism, and it is high time that the United States address and dismantle the systemic oppression that has categorized so many of our communities as “sacrifice zones”.

The government needs to provide viable ways for people to stay and/or rebuild, and viable ways for people to leave and relocate if the people so determine. The government must also enable people to maintain access to place, regardless of inhabitability. Relocation and forced climate migration are issues not only about finding a safe place to live, but also upholding climate justice communities’ self-determination and sovereign rights to access culturally important places, such as sacred sites and fishing grounds.

The list of needs on the Gulf Coast for Disaster Justice is too long to be enumerated. The WHEJAC should also form an investigation unit or task force to address this, because Disaster Justice is inextricably linked to and intertwined with environmental and climate justice. For

³³⁹ Healthy Gulf’s purpose is to collaborate with and serve communities who love the Gulf of Mexico by providing research, communications and coalition-building tools needed to reverse the long-pattern of over exploitation of the Gulf’s natural resources.

example: the Gulf Coast needs housing and evacuation assistance for people under a voluntary evacuation. For everyone receiving financial assistance during and after evacuation, the location (i.e., “approved hotels”) should not be prescribed by FEMA but rather assistance should be in the form of monetary payments. In Louisiana during and after Hurricane Ida, hotels were sold out for hundreds of miles in every direction, and especially people with pets or medical needs had difficulty finding affordable options, and some people rented AirBnBs or other short term rentals. This meant that people evacuating had to pay for the stay up front, which could amount to hundreds of dollars. Plus, people had to have a car and gas money to get the hundreds of miles away. Many people need to be closer to home for the clean-up and rebuilding process and for social network and familial connections. Evacuation should not be only for the privileged, and resources should not be limited based on whether there is a mandatory evacuation order.

The same is true of housing assistance and rebuilding assistance. Following a disaster, people need assistance right away and then for weeks and sometimes months thereafter. There need to be mechanisms in place to disperse money up front quickly, like a “universal basic disaster income”. Then there need to be mechanisms in place for long-term recovery as well. Money is not the only issue. There needs to be housing made available for recovery volunteers. This is a critical missing piece, and one that three months later we are still struggling with post-Hurricane Ida.

The following is a list of some of the things that must be done, that the WHEJAC could address.

1. WHEJAC should demand that the EPA (or other agencies) and the corporations ensure the human rights of clean water and clean air, by: a) telling people what’s in their water and b) telling people what’s in their air. Those pieces of information should also never be used to force people out, but instead should be used to clean up and stop the pollution and to improve the health and well-being of the people that live there. Reporting on what’s in the air and water should occur both on a regular basis and in a clear and direct way, so that people who are not familiar with air and water pollution regulations can understand. Everyone has a right to this information, especially people that live amidst air and water pollution. This includes:
 - *Require states and counties/parishes to track cases of cancer and other illnesses (including COVID-19) that can be exacerbated by pollution by location or locations where the person lives (as opposed to the hospital they are treated at)*
 - *Make this data is anonymized but publicly and readily available*
 - *Require agencies like USCG, EPA, FEMA and NOAA to openly coordinate after a disaster especially in industrial zones, and to share with the public what’s in the air and water*
2. Immediate implementation of a Gulf Coast investigation group as Advisor McCarthy agreed to at the WHEJAC meeting on 11/17/21. The results of those investigations need to be shared readily with the people on the ground. We need investigations into our LDEQ, as well as the River Parishes, southwestern Louisiana, and the coastal industrial

corridors in Texas. We also need accountability and investigation of pollution monitoring after and during a disaster like Hurricanes Ida, Laura, and Katrina.

3. Require that greenhouse gas (GHG) emissions be taken into account in NEPA.
 - *Establish strict GHG emissions limits, apply to entities applying to be a point source GHG-emitter*
 - *No carbon capture and sequestration (CCS). CCS requires pipelines in the Gulf South where pipelines are environmentally racist (the vast majority of pipelines are installed in the vicinity of people of color and low-income communities)*
4. Ensure that rigorous Environmental Justice review (including cumulative impacts) is conducted as a part of NEPA.
 - *Set out clear methodology for designation of an EJ area, and local revisions/petitions to be incorporated*
 - *Methods for EJ analysis and community identification should be much more rigorous*
5. Establish Just Transition plans for the Gulf Coast (and the nation) informed by regional Green New Deal goals

The Gulf Coast is not a sacrifice zone. The River Parishes on the Lower Mississippi River in Louisiana, the industrial corridors in southwest Louisiana, the “Golden Triangle” in southeast Texas, the Houston Ship Channel, Matagorda Bay, the Rio Grande River Valley - these communities and ecosystems are vibrant and valuable, and none of them deserve the shackles of systemic industrial racism that have been placed on them.

On behalf of Healthy Gulf and our thousands of members across the Gulf south, on behalf of the undersigned and everyone they represent, on behalf of everyone who loves the Gulf of Mexico, on behalf of the land and the rivers and the watersheds, on behalf of the ecosystems and the global climate crisis, we urge the WHEJAC to institute the changes we need to dismantle systemic environmental racism.

We look forward to a swift response.
(submitted via Docket at regulations.gov and email)

Best regards,



Naomi Yoder, Staff Scientist
Healthy Gulf
PO Box 2245 New Orleans,
LA 70176

naomi@healthygulf.org

/s/

Dr. Julie Maldonado

Livelihoods Knowledge Exchange Network jmaldonado@likenknowledge.com

/s/

Dr. Mira Olson, Associate Professor

Environmental Engineering Drexel

University mso28@drexel.edu

A handwritten signature in cursive script that reads "Alma Robichaux".

Alma Robichaux, Education/Outreach Coordinator

Barataria-Terrebonne National Estuary Program

Alma@btnep.org

**Northeast -1 Maine, Massachusetts, Rhode Island, Connecticut, New
Hampshire, Vermont, New York, Pennsylvania, New Jersey, Delaware,
Maryland, DC**

Dear White House Council on Environmental Quality (CEQ) and the White House Environmental Justice Advisory Council (WHEJAC):

My name is Jerimiah Sanders, and I am the Field Environmental Officer for U.S. Department of Housing and Urban Development's (HUD) Region 8. I have served in this position since June of 2016. Prior to my current position in HUD's Region 8 office, I was in HUD's Office of Environment and Energy in HUD Headquarters for nine years and focused on National Environmental Policy Act (NEPA) and related compliance as well. I appreciate President Biden, Vice President Harris, Secretary Fudge, and the rest of the Administration taking on these longstanding problems and issues, and I look forward to helping in any way I can. Over the years, my current and former colleagues and I have had concerns in the following areas. I submit these comments in my individual capacity.

Lack of Meaningful Public Participation: Under 24 CFR Part 50, where HUD performs the environmental reviews itself, there is no required public notice or comment period for Environmental Assessments (EA) or Findings of Significant Impacts (FONSI). This means that the day HUD completes the review that construction contracts and activities can commence. This includes mortgage insurance guarantees amounting to often more than \$100 million per project or vouchers being placed for decades into new construction activities. While the reviews are now posted online upon completion, it is unclear how anyone would be aware of the review being posted without prior knowledge, and furthermore, it is unclear how the comment can be meaningfully considered when the project is already being constructed the same day the Environmental Review Record (ERR) is made public. Is this appropriate?

Lack of Monitoring and Accountability: In addition to 24 CFR Part 50, HUD has 24 CFR Part 58. This regulation codifies a provision of the Housing and Community Development Act of 1974 at Section 104(g) that allows Tribal, state, and local governments to perform NEPA reviews for certain HUD programs. The only program office with any dedicated environmental monitoring is the Office of Community Planning and Development (CPD), which contains the NEPA office, the Office of Environment and Energy. As a member of this office, I routinely monitor grantees that were last monitored 15 to 18 years ago with significant issues, including floodplains and site contamination. Some programs, such as the Self-Help Homeownership Opportunity Program (SHOP) and all programs within the Office of Public Housing (OPH) including Project-based Vouchers under Section 8, do not have regular environmental monitoring. This means that none of these projects or public housing agencies are monitored at all unless they are in a CPD entitlement community or otherwise receiving other CPD assistance from the state. This means that thousands of public housing agencies' units go unmonitored, including those built prior to our regulations on floodways and site contamination. This is especially problematic given that significant amounts of public housing were constructed on polluted sites.

Within the last 5 years, I have seen the records of two housing agencies that were obviously noncompliant. I received one through an error and the other through a reporter's Freedom of Information Act (FOIA) requests. I was told that it is not the policy of the Office of Public Housing to follow-up on known violations. I am not sure how this meets our statutory obligations. These public housing agencies are in two communities that are not subject to my regular monitoring. We had previously made some progress on some of these known issues, but unfortunately, we then started to backslide. Please see the HUD Office of Inspector General (OIG) report on known issues with NEPA and OPH: <https://www.hudoig.gov/reports-publications/report/hud-did-not-adequately-implement-orprovide-adequate-oversight-ensure>

Furthermore, I recently encountered a situation where tenants in HUD-assisted public housing units were (and possibly are still) being knowingly exposed to radon for nearly two years at this point. HUD failed to act until the housing authority requested approval for roof repairs on the units, and HUD informed the city that it could not certify that the units were free of radioactive gas when there was a radon professional on the local news indicating that there are known radon exposures. It is unclear how or why HUD would knowingly continue to support units with Federal funds that do not comply with state implied warranties of habitability or our regulatory obligation to keep HUD programs free of radioactive substances and gases under 24 CFR 58.5(i)(2). It is also unclear why the news story and tenants' testimony did not trigger HUD's obligations under 24 CFR 982.405(g) or the requirement to reevaluate the environmental review due to a change in an environmental condition under 24 CFR 58.47(a)(2). I recently received notice that the entire complex was tested, but I have not received confirmation that mitigation repairs have occurred. These issues were also the subject of a HUD OIG investigation listed below after several news reports.^[1] HUD was tasked by Congress to ensure that public housing was free of radon in the Stewart B. McKinney Homeless Assistance Amendments Act of 1988. The links below document its failure to do so, including a Government Accountability Office (GAO) Report from 1991 stating that HUD has failed to implement testing and mitigation as established by the Environmental Protection Agency (EPA) and required by statute.

"Cancer Cloud: Government Ignores Radon Risks in Public Housing," *The Oregonian*: <https://projects.oregonlive.com/radon/?fbclid=IwAR1JqNCKWcwfi8YAnIA59qpB-p0APMTyrD-qWLyFBqZGGvKwWCXQCunpvM>

"CBS4 Investigation Finds Dangerous Radon Levels In Public Housing," *CBS Denver*: <https://denver.cbslocal.com/2020/02/25/dangerous-radon-levels-public-housing-coloradoddenver/>

"Denver Housing Authority To Begin Testing All Of Its Public Housing Complexes For Radon," *CBS Denver*: <https://denver.cbslocal.com/2021/04/07/denver-housing-authority-testing-publichousing-complexes-radon/>

"'Critical for HUD to act': agency watchdog says public housing tenants need radon protections," *The Oregonian*: <https://www.oregonlive.com/politics/2021/04/critical-for-hud-to-act-agencywatchdog-says-public-housing-tenants-need-radon-protections.html>

"HUD Resists Public Housing Radon Safeguards," *PEER.org*: <https://peer.org/ HUD-resists-publichousing-radon-safeguards/>

"HUD Program Offices' Policies and Approaches for Radon," *HUD Office of Inspector General*:

<https://www.hudoig.gov/reports-publications/report/hud-program-offices-policies-andapproaches-radon>

"Radon Testing in Federal Buildings Needs Improvement and HUD's Radon Policy Needs Strengthening," *Government Accountability Office*: <https://www.gao.gov/assets/t-rced-91-48.pdf>

HUD seemingly codified its neglect into a statute in the Economic Growth, Regulatory Relief, and Consumer Protection Act. OPH staff has not been able to inform me of any remaining provisions to protect tenants in housing with known adverse environmental and health impacts but subject to this exemption, and it remains unclear how 24 CFR 982.405(g) is being applied for indoor air pollution from chemical vapor intrusions or radon. The statutory provision was written under the assumption that NEPA and the related laws and authorities are a regulatory burden without considering that NEPA and the related laws are the agency's operational tool for public health issues. At minimum, there should be a provision for the Secretary to reinstitute or reapply the NEPA regulations on a project or granteespecific basis if there are public health threats or threats to historic and cultural resources, including and especially concerning those of Native American Tribes. At this time, it does not appear that HUD has a means to address units exposed to toxic and radioactive gases if the units are subject to this exemption. What are an agency's obligations to re-evaluate known exposures to contaminants?

Small PHA Exemption Regulatory Notice:

https://s3.amazonaws.com/publicinspection.federalregister.gov/2020-04004.pdf?utm_campaign=pi+subscription+mailing+list&utm_source=federalregister.gov&utm_medium=email

Contract Renewals and Environmental Reviews: Often, HUD will renew contracts for assistance that will last over decades, and HUD renews these contracts by simply updating the reviews from years ago. Should a new review be performed when renewing these contracts for twenty years and typically, without ever having received a public notice and comment period? What are an agency's responsibilities to ensure its contracts provide for the enforcement of its NEPA regulations including necessary reevaluations due to known or suspected public health threats? Thank you for your time and expertise. I am very grateful for this opportunity to offer these comments and this outlet to address environmental justice concerns throughout the country. Sincerely, Jerimiah Sanders

Name: Teresa Vecere-Edwin
Organization: Noise Free America
City and State: Bay Shore, NY

Brief: Noise pollution, an often-overlooked issue, affects the mental, emotional and physical well-being of all sentient beings. Veterans, first responders and others with PTSD suffer tremendously due to the trauma-inducing noise of fireworks. In recent years, there has also been a surge of car enthusiasts who have been illegally modifying their vehicles exhaust system to make them sound like explosives. In addition to the noise from fireworks and illegally modified exhausts, air and water pollution is a concerning consequence as well.

Want WHEJAC to do: "Ban fireworks. Period. There are noiseless options available, and while their use still disperses toxins into the air and water, at least the traumatic noise is mitigated. This must be done on a federal level. Even consumer fireworks are illegal where I live, yet residents are easily able to purchase and set off DISPLAY fireworks with no repercussions - and they do it year-round. My husband, an army veteran and retired NYPD detective, temporarily lost his hearing last year when a huge explosive was detonated on a property adjoining ours. This happened the day after Thanksgiving! Law enforcement does not even attempt to stop this anymore. Residents in my community have been told by officers to expect it and that there is nothing they can do. A Vietnam veteran with PTSD whom I know has to leave his home and travel to a remote area upstate New York for two weeks to avoid the worst of the trauma. Not only do fireworks affect the quality of life of other residents and domestic animals, but the harm to wildlife is reprehensible: millions of injuries and deaths of birds and other species occur each year due to fireworks alone. Ironically (and hypocritically), celebrating this country's independence with fireworks harms the environment and wildlife and traumatizes veterans by emulating the sounds of bombs and war. That more than ninety percent of these explosive devices are manufactured in China, many with dubious quality control and oversight, should be of extreme concern and must be addressed by the federal government in order to stop harming our already beleaguered environment and to improve the quality of life for citizens countrywide. Re: Illegally modified vehicles: Manufacturers and distributors of the parts for illegally modifying the exhausts on cars and motorcycles should be held to account, as should service stations passing these vehicles for inspection. Fines for offenders - including owners of the vehicles - must be increased as a deterrent. Just as speed cameras are installed, decibel readers should be utilized in problematic areas as well.

Name: Sheila L Palevsky

Organization: past president, New York Chapter 3 American Academy of Pediatrics

City and State: New York

Brief: As a pediatrician, I am concerned about the health and environmental impact of 2 cycle gas powered leaf blowers. They are polluting, adding to the ozone layer, make ear damaging noise, potentially damage eyes with the generation of high velocity flying branches, objects and particles. They also damage young underbrush and plant life.

Want WHEJAC to do: Create a ban on the use of 2 cycle gas powered leaf blowers and other 2 cycle gas powered blowers such as snowblowers. There are alternative products to be used.

Name: Molly Olivia Roffman

Organization: Former Chair Yonkers Green Policy Task Force

City and State: Yonkers, NY

Brief: "Leaf blowers do more harm than good to the landscape and to the operators required to use them. It is an unjust practice with the end result being a few minutes of temporary tidiness. The end result does not justify the means. The small engine and lawn care industry have created a myth that leaf collection is so physically demanding that it requires the use of hurricane force winds and gas-powered machines. It is a money-making charade successfully propagated by these industries to the detriment of the residents and the workers. The American Heart Association recommends leaf raking for people with heart disease! Raking leaves is categorized as 'light work' in ergonomic classifications. Do these workers have health insurance? Are they made aware of the hazardous air pollutants (HAPs) in the exhaust of a 2-cycle engine? Are they aware of the health risks of breathing in this exhaust and the additional particulate matter (dust, mold spores, pesticides, animal feces, broken glass)? Are they being treated in our emergency rooms for lung disease at increase cost to the taxpayer? Imagine having to wear the most heavily polluting small engine on your back 8 hours a day, 7 days a week. The American Heart Association recommends raking for people with heart disease! Raking is considered 'light work' in ergonomic assessments. In 2007 Yonkers successfully passed an ordinance banning the use of gaspowered leaf blowers during the summer months. Our legislation was based on the serious cardiopulmonary health risks blowers pose to the public - especially the most vulnerable - fetus, infant, child, older adult and undocumented worker. The most vulnerable people are those who are home during the day and most exposed! Landscapers threatened - but never raised their rates!! It is well known that an encounter with a leaf blower for a child with asthma could be a deadly one. Inhaling that pollution on the way to school could set the child up for an asthma attack later that day on the way home. How would they get help? Why do we tolerate this practice? Who gave the industry permission to enter our neighborhoods with these machines in the first place? Leaf blowers are now being used in urban areas to blow garbage and broken glass off of parking lots and as a replacement for brooms on hard surfaces in crowded housing projects. This use puts infants, children, older adults and unborn children who are not able to access the best health care at significant risk. The landscapers whine and complain in order to keep this money-making charade going and they threaten to raise rates - it hasn't happened. Blowers were originally designed to blow pesticides and when they needed a new use for them, they became leaf blowers. Leaves should be mulched into the soil with a mulching mower - completely eliminating the need for the blower. A battery powered handheld blower that has a long battery charge (now available!) can be used on hard scapes. There is battery powered back pack blowers available but blowers do more damage than good to the landscape. I remember when gardeners simply raked leaves to a tarp. We stopped burning leaves because it was toxic, and we replaced it with this? As the EPA says, Small Engines are Big Polluters. They should be eliminated. Please protect the workers and the public from these deadly machines. There is no such thing as 'fresh air' anymore in our neighborhoods. It is a crime.

Want WHEJAC to do: "The sale and use of gas-powered blowers should be banned. Leaves should be mulched into the soil with a mulching mower - completely eliminating the need for the blower. A battery powered handheld blower that has a long battery charge (now available!) can be used on hard scapes.

Name: Bradford Labine

Organization: Tiverton

City and State: RI

Brief: Manmade noise, such as from modified exhaust systems and stereos in cars and motorcycles, are destroying the peaceful neighborhoods and homes all Citizens are entitled to. While we enjoy many freedoms, with freedom comes individual responsibility. Nobody has the right to infringe on another's peace and quiet by forcing upon others their childish desires to make noise and draw attention to themselves. The regulatory framework is already in place, we just need to fund it and put it to work.

Want WHEJAC to do: "(1) Restore funding of the EPA's Office of Noise Abatement and Control. (2) Enforcement of the Quiet Communities Act and the Noise Control Act."

Name: Sean Grace

Organization: Noise Free America

City and State: Philadelphia, PA

Brief: Noise pollution has become a major health threat as back-up beepers, sirens, car alarms, leaf blowers, motorcycles, etc. increasingly infiltrate society. Noise has a deleterious effect on the human nervous system, raising stress levels that contribute to anxiety disorders and cardiovascular disease.

Want WHEJAC to do: I would like the WHEJAC to enact rules and regulations that limit the use of sirens, eliminate vehicle back-up beepers and car alarms, restrict motorcycle muffler noise and ban gas powered leaf blowers.

Name: Noel Weigel

Organization: Noise Free America

City and State: Horseheads, NY

Brief: "Gratuitous noise, meant to disrupt and annoy, is increasingly prevalent in cities and towns. This noise come in: cars, motorcycles, music-playing devices, etc..This extra-normal addition to 'already existing ambient sounds' (like construction / work-related noises, tire/road rumble etc. is intentional, but creates and negatively affects one's freedom of liberty."

Want WHEJAC to do: To protect this society of America, establish and enforce already-existing Laws means to allow this Country to: grow responsibly. This will: protect those seeking fresh air; protect those overwhelmed by angry / aggressive malcontents.

Name: Sherrill Franklin
Organization: Noise Free America
City and State: West Grove, PA

Brief: "Communities struggle with excessive noise from sources ranging from illegally modified vehicle exhaust systems to leaf blowers to appliances. Consequences include impacts on health, reduced housing values and increased crime.

Want WHEJAC to do: Support funding for the Office of Noise Abatement and Control (ONAC) that was defunded in 1981. This would improve the quality of life for all communities and particularly those hit hardest by excessive noise.

Name: Alvin Hal Strelnick, MD
Organization: Quiet Montclair
City and State: Montclair, New Jersey

Brief: Air and noise pollution created by gas-powered leaf blowers that affect primarily lawn care "essential" workers, who are primarily men of color with few safety protections. The air pollution lingers and affects children and families, too. The two-stroke engine burns incompletely and emits a toxic mix of fuel, oil, gas, and particulate matter.

Want WHEJAC to do: "Consider phasing out gas-powered engines for electric and battery-operated machines and promoting ""leaving the leaves"" and practicing more ecologically friendly ""native"" garden and lawn practices.

Name: Lucille Weinstein
Organization: Past Co-Chair, Committee on Environmental Health, Academy of Pediatrics NY Chapter 2
City and State: Bedford, CT

Brief: Health and environmental risks of gasoline lawn equipment - particularly leaf blowers, which are 2-stroke engines that are heavy polluters- are a big concern. We know that we must transition to more to more sustainable energy; let's not forget this source. Now that there are cost-effective electric alternatives, we need to institute national restrictions on the gas equipment. Landscape workers, children, the elderly and those with heart or lung disease are particularly at risk. This is an environmental justice issue as workers are usually low paid, frequently have poor or no health insurance (many are undocumented) and are exposed to toxins and noise pollution without recourse.

Want WHEJAC to do: To ensure that the appropriate agencies - including the EPA - are tasked with finding ways to encourage restrictions or banning of gas leaf blowers. This could include education and grant funding of incentives for the landscape industry to switch from gas to electric.

Name: Bonnie Sager

Organization: Huntington CALM (Clean Alternative Landscaping Methods)

City and State: Huntington, New York

Brief: "Two-stroke engines have been phased out of nearly all industries with the exception of lawn equipment. This is an area we would like to see the EPA begin tackling to help address our environmental crisis. Many developing nations are eliminating the use of two-stroke engines due to the copious amounts of air pollution they produce. Air pollution is the number one environmental cause of death as stated by the World Health Organization. Up to 30% of the gasoline used in these highly fuel inefficient pieces of equipment is released into the atmosphere. You might be astonished to learn that a gas leaf blower operating for just 30 minutes puts out as much emissions as a pickup truck traveling 3,900 miles.

<https://www.edmunds.com/about/press/leaf-blowers-emissions-dirtier-than-highperformance-pick-up-trucks-says-edmunds-insidelinecom.html>

It is estimated that every time a gas leaf blower is filled by the landscapers, 2 ounces of gasoline is spilled, polluting the air and our groundwater. There are evaporative emissions from thousands of gas cans used to refuel two stroke engines. The EPA reports that Americans spill more than 17 million gallons of fuel per year refilling their gas garden equipment. That's more than the 1989 Exxon Valdez oil spill, and the equivalent of 87 million tons of smog produced per day! By replacing two stroke engine gas-guzzling leaf blowers and string trimmers with cleaner and quieter electric and battery-powered equivalents, an example can be set for global environmental accountability.

One study by Edmunds found that a two-stroke, gas-powered leaf blower emitted 23 times the amount of carbon monoxide, and nearly 300 times the amount of non-methane hydrocarbons as a pickup truck. By making this one minor adjustment we could help to reduce greenhouse gas emissions, dependence on fossil fuel and also reduce many public health problems, including: Asthma, Cardiovascular disease, Central nervous system disorders, Chronic obstructive pulmonary disease, Decreased biodiversity, Hearing loss, Hypertension due to noise, Lung cancer, Premature births, Respiratory disease, Risk of heart attack. These health risks do not only apply to the public, but also for the employees of lawn care companies.

Commercial electric leaf blowers and trimmers are now on the market and are comparable in work production to gas equipment. California just passed legislation that will ban the sale of small lawn and garden equipment by 2024. The California Air Resources Board has stated that the emissions from small lawn and garden equipment in California will surpass the amount of emissions from all the passenger cars in the state by 2020.

<https://ww2.arb.ca.gov/our-work/topics/lawn-garden-landscape-equipment>

NYS has three bills in the legislature that are addressing this issue. The use of gas-powered leaf

blowers comes with high costs for our health, environment, and enjoyment of living in communities around the United States. We hope the EPA will promote a more livable community for everyone. Then there is the social justice issue. No human being should have to earn a living in our country by having a combustion engine strapped to their back hours a day while being enveloped in a cloud of toxic, carcinogenic emissions. We ask the EPA to consider banning all two-stroke engine equipment and in time phase out four stroke engine equipment.

Want WHEJAC to do: Eliminate the use of two stroke engines in the United States.

Full Name (First and Last): Amy

Name of Organization or Community: Mccoy

City and State: Ayer, ma

Type of Comment: Written Comment Only

Brief description about the concern: Thank you for the opportunity to share a written comment. The environmental concern in my neighborhood is noise and lead pollution that is dumped in my area as a result of prolonged flight maneuvers overhead by recreational flight schools that are based at airports several towns away from me.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Ban leaded aviation fuel. Allow airports to fine aircraft for generating noise complaints and keep flight maneuvering sessions out of noise sensitive areas and congested residential neighborhoods.

Full Name (First and Last): Catherine Wallenmeyer

Name of Organization or Community: Citizens for Airpark Safety

City and State: Gaithersburg, MD

Brief description about the concern: Current FAA regulations relative to general aviation are outdated and deficient in dealing with noise and lead pollution from general aviation operations, specifically piston engine planes, Aircraft 12,499 lbs. There is no safe level of lead. Piston Engine general aviation aircraft is still using leaded fuel. There are no protocols at the state level for atmospheric lead testing. We would like your support to change the regulations to require general aviation to use unleaded fuel only. Noise is not adequately addressed by GA operators and no clear measurement for sustained or recurring noise.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

1. Changes need to be made to ANCA to address noise from piston engine planes 12,000 lbs and under
2. Require general aviation to only use unleaded fuel
3. Require state environmental agencies to have protocols to test for lead promotion
4. Instruct FAA to modify requirements for FAR 161 13/14 requirements for GA operators to restrict touch and go/stop

operations without impacting their grant assurances.

Full Name (First and Last): Theodore Rueter

Name of Organization or Community: Noise Free America: A Coalition to Promote Quiet
City and State: Chapel Hill

Brief description about the concern: Gas-powered leaf blowers do tremendous damage to our environment. They spew noxious fumes into the atmosphere. Five to ten percent of the noxious emissions in the nation come from gas-powered lawn equipment. The noise from gas-powered leaf blowers has numerous negative health effects. Gas-powered leaf blowers and the two-stroke engine should be banned.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

1. To ban gas-powered leaf blowers.
 2. To ban the two-stroke engine.
 3. To reinstate funding the Office of Noise Abatement and Control within the EPA.
-

Full Name (First and Last): Francis Warnock

Name of Organization or Community: 1st State Bikes (1stbikes.org), Ogletown Resilience (ogletownresilience.org)
City and State: Newark, DE

Brief description about the concern: Oppressive and painful vehicle noise from non-standard illegal exhaust systems is destroying the quality of life, health and wellbeing of everyday Americans, particularly in Delaware where I live.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: There is a colossal failure by the State and its various Police agencies to penalize and/or prosecute for drag racing and modified vehicle exhaust systems. These include "fart can mufflers", straight pipes or other modified systems that vastly increases vehicle noise. For many residents living in New Castle County's suburbs, for example, even a half mile from the nearest arterial road is like trackside at a NHRA event. Many people hear it inside their homes, even above their TV, especially on weekend nights. It is supposed to be illegal, and it is according to Delaware law. But there is no police enforcement of this crime, so the offenders know they can get away with it. These vehicles can be 120+ db on acceleration, which if you're a pedestrian or bicyclist, is hurtful and/or damaging to the human ear -- never mind the distress on wildlife. There needs to be a bill, with specific enforcement detail, introduced in Congress and signed by the President, to step up prosecution of this deliberate and disgusting act by a small minority that hurts the clear majority. Please support whatever action is necessary to make this happen.

Thank you very much.

Full Name (First and Last): Gregory Simpson

Name of Organization or Community: Nauraushaun Presbyterian Church

City and State: Pearl River, Ny

Brief description about the concern: STEM Education is a critical empowerment tool to address and redress EJ issues across our country.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

First, let me thank you for the opportunity to speak to the critical work of this committee and the Justice

40 initiative. My name is Gregory Simpson. I am the Pastor of Nauraushaun Presbyterian Church in Pearl River, NY, an organic chemist, science educator, mentor, environmental justice advocate, and co-chair of the Hudson Valley/Catskill Chapter of the Climate Reality Project. The concern that I want to raise here is that for many, many years, public schools found in EJ communities have consistently succumbed to lower quality of education, and this is particularly problematic in the resource-intensive fields of Science, Technology, Engineering, and Math (STEM) essential skills necessary to create a resilient human resource infrastructure. While the Justice 40 initiative has as a focus creating and improving how government agencies incorporate EJ in their operation, and the infrastructure bills will provide muchneeded upgrading to the physical environment in which students in public schools learn, with the longterm benefit of job creation in green professions as one outcome, I encourage the committee to also consider how education and training pathways for BIPOC students in EJ communities will benefit from these investments. Will the education in BIPOC communities continue to rest on aptitude testing, such as Regent's exams, PSAT, SAT, and the advanced tests such as MCAT, LSAT, and GRE's or are there other pathways that are being considered for students to get the education, critical thinking skills, and training they will need for good-paying green jobs, in support of infrastructure development? As you are well aware, aptitude testing has for years been a significant barrier to entry to good-paying STEM jobs for BIPOC students, but is critical for environmental sustainability, climate change mitigation, and economic growth. I, therefore, encourage you to consider creating programs that permit both STEM education enrichment and focus on tutoring and mentoring, specific for aptitude test-taking skills for BIPOC students in EJ communities. Again, while I do agree that STEM education is not the only pathway for economic mobility and stability over the long term, for EJ community students, in our current model of education, it is a crucial predictor of where a student will end up, whether as physicians & healthcare professionals, scientists, EJ advocates, policymakers, private sector innovators, managers, etc. Thank you again for the opportunity to speak to this committee.

The Office of Noise Abatement & Control at the U.S. Environmental Protection Agency should

be fully funded and given the authority to enforce all provisions of its noise regulations and directives. Especially those pertaining to motorcycles and the compliance with established noise levels and equipment. This is needed to stop the increasing number of motorcycles that are being sold or equipped with unsafe and harmfully loud aftermarket exhaust systems - creating an unhealthy environment for children, the ill, and those with medical conditions.
Anthony Lombardy

Full Name (First and Last): Susan Britto

Name of Organization or Community: Noise Free America

City and State: Berlin, VT

Brief description about the concern: Excessive vehicle noise caused from the installation of after-market exhaust systems is out of control. I had to move from my beautiful home in central Vermont because of excessive vehicle noise. Excessive noise is harmful to people's health and the proliferation of aftermarket exhausts is mainly the cause of excessive vehicle noise.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Please ban after-market exhausts for all on-road vehicles!! People are suffering all over the country because of after-market exhaust noise. Please ban after-market exhausts, I beg you!!

We also need to revive the EPA, we need enforcements to protect people and the environment, we need Quiet Communities. So many people are suffering.

This comment is submitted after my virtual attendance to WHEJAC Public Meetings on November 17 and November 18. Council members and I were very moved by the members of the public who gave comments pleading for help from environmental and health harms they had suffered and were experiencing in their communities. On November 18, Council members spoke for some time about these public comments, and what the appropriate response might be to those deeply moving and disturbing testimonies. WHEJAC should compile the transcripts and recordings of those public comments as testimony and organize them in a virtual public library so that they may be used as a resource and historical record of harm. The testimonies might be referenced, used as evidence, and studied. Give the people who have not been heard a voice. Best, Tricia Taylor

Dear WHEJAC,

This is simply a short note to convey my personal gratitude as a member of the public for the

amazing effort on display by the WHEJAC members this week. I stayed on for the full public meeting sessions held Nov 17 & 18 and cannot imagine how exhausting these were for the participating members of the council. But please know that the environmental justice community is paying attention – and we are so inspired by your work and dedication. Thank you, thank you, thank you. Michel Lee, Esq.

I'm president of the Organization entitled Ban the Blowers East Hampton. Started in 2013. We've made some progress, but still in the process of a year-round ban on gas blowers. Our town has declared being in a State of an Environmental Emergency. Let's wake up and ban them. The concept of Peace and Quiet has vanished. Disturbing the peace use to be a civil offensive. Ban the blowers. Sincerely. Robert Casper.

To the members of the White House Environmental Justice Council:

I'm a co-founder of Quiet Clean NOVA, a grassroots organization in Northern Virginia that seeks to curb the noise, pollution, environmental injustices, and ecological degradation associated with gas-powered leaf blowers. I know that leaf blowers may seem like a small matter in the grand scheme of environmental problems, but I think that the more you learn about them the more you'll realize that they have an outsized impact on our environment and especially on the health of the workers who use them. Most gas-powered leaf blowers have crude 2-stroke engines that use a mixture of gasoline and oil for lubrication. These are the same types of engines typically used in the motorized rickshaws that have contributed mightily to the choking air pollution in many Asian cities. The rest of the world is moving away from this obsolete technology, but its use continues unchecked in the U.S. landscape industry. About a third of that fuel is released UNCOMBUSTED into the air. This includes known carcinogens such as benzene, butadiene, acetaldehyde, and formaldehyde. The California Air Resources Board says a popular model gas-powered leaf blower emits as much smog-forming pollutants in ONE HOUR as driving a Toyota Camry **1,100 miles** – about the distance from Los Angeles to Denver. A 2011 test by the Edmunds car journal, with help from AAA, found that a 2-stroke engine backpack leaf blower emitted 300 times more hydrocarbons and 23 times more carbon monoxide than a 6,200-pound Ford 150 Raptor pickup truck. All of these pollutants are dangerous to human health. The people most exposed to these noxious emissions are the low-wage landscape workers _ may of them from communities of color _ who use leaf blowers and other gas-powered lawn and garden tools day after day, all day long at close proximity. Further, these workers often spill gas on their skin and their clothes as they're filling these machines. The EPA estimates 17 million gallons of gasoline are spilled every year just fueling lawn mowers. For comparison, the Exxon Valdez spilled 11 million gallons of oil. But toxic emissions aren't the only health risk these workers face. The World Health Organization, the EPA, NIOSH and other agencies cite 75 to 85 decibels as the threshold where hearing damage starts to take place. The September 2021 Consumer Reports magazine said all the gas-powered leaf blowers

they tested were above 85 decibels. It's not unusual for gas-powered blowers to measure over 100 decibels at the ear of a lawn crew worker or other operator. The difference between 85 and 100 decibels may not seem like very much, but keep in mind that a difference of 10 decibels – going from 60 decibels to 70 decibels, for example – is a 10fold increase in sound pressure and a doubling of noise as perceived by the human ear. There are also serious ergonomic issues associated with gas-powered leaf blowers. Many workers report numbness and tingling in their hands and arms from the vibrating of the leaf blowers. All leaf blowers – gaspowered and battery-operated – operate at powerful airspeeds. 150 mph to 280 mph is typical. As a result, they send airborne whatever yuk is on the ground – dried animal feces, pesticides, herbicides, fertilizers, fungal spores, mold, pollen, diesel soot, brake dust, etc. This particulate matter can linger in the air everyone breathes for days, but it's the workers who are most exposed. I don't know of any data on this, but in suburban Northern Virginia where I live, I see lawn crews daily in my neighborhood and elsewhere in the community. Rarely do I see lawn crew members wearing ear protectors or masks to help shield them from pollution and noise. These workers don't have a lot of clout. Many are immigrants. Frankly, I'm appalled that people are asked to sacrifice their health because suburbanites want others to make their lawns tidy. If you're looking for an environmental injustice to remedy this is an excellent place to start. Please let me know if I can answer any questions. Joan Lowy, Quiet Clean NOVA, director

Full Name (First and Last): Molly Fiedler

Name of Organization or Community: Garden City Sustainability and Environmental Advisory Board Garden City

City and State: Garden Ciy, NY

Brief description about the concern: The harm caused by pollution of Gas Leaf Blowers used by individuals and landscapers, often 2-6 at a time within a small location, used in proximity to passerby and neighbors that are exposed.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Please ban the use and sale of inefficient, polluting and extremely noisy (90+ decibels) Gas Leaf Blowers that are causing toxic emissions within our neighborhoods all across America.

I believe that we have a problem with International Boundaries and with foreign corporations and entities having rights that seem to be superseding State's rights, water rights and human rights. As our nation moves into a position once again of being a leader in the fight against environmental degradation and injustice, I do hope that the information I have provided is relevant to you. The whole world knows that massive scale hydro dams contribute to Global Warming intensifying the Climate Crisis and yet, Hydro Quebec continues to state that their dams do not have emissions. The recent ballot vote in the State of Maine is being disputed by

Avangrid. Avangrid is clear cutting forest for the transmission corridor to connect Massachusetts to Hydro Quebec. As I write, there is a Department of Public Service hearing going on regarding this matter today. The ISO of Massachusetts stated in a recent seminar that "Hydro Quebec is considered emission free - because they do not report emissions." NY State DEC has a new rule that all emissions, including from imported electricity, be counted. The CEQ requests that self-reports be discontinued in Phase 2 and that reports be done by independent parties. There are other projects that are not as detrimental, that use Thruway Rights of Way - not rivers. Projects that are clean. The CHPE project (which has not yet been approved by Governor Hochul, NYSERDA or the PSC) stops NY's ability to engage in better practices and create real jobs. Hydro Quebec continually changes the numbers of jobs it says it will create. The jobs are temporary, and they usually bring in their own crews, and their own EIS states 26 jobs. I am sorry to have taken more of your time in this note but feel these are important issues that relate directly to CHPE, Blackstone and Hydro Quebec and justice for all - be it a River or Indigenous people - not just in NY State or our nation, but over the border as well. Sincerely, Jacqui

Good afternoon White House Environmental Justice Advisory Committee:

I am the Sr. Food and Climate Policy Analyst with Friends of the Earth, U.S., and I attended portions of the most recent WHEJAC meeting last week. During my attendance, I did not hear public input on the negative impacts concentrated animal feeding operations (CAFOs) have on water resources and surrounding communities, which are disproportionately low-wealth and communities of color. Accordingly, I am submitting for your review and consideration comments submitted in response to EPA's Draft Strategic Plan urging the need for federal regulation of emissions and discharges from CAFOs. While we applaud the Biden Administration's work to mitigate climate change and to address systemic environmental justice concerns, it is imperative that this Administration take a stronger stance on the impacts these corporate operations have on overburdened communities by demanding accountability and prioritizing health and equity over corporate profit. Thank you for your time and consideration. Regards, **Adriane J. Busby**

Southeast -2 West Virginia, Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, Arkansas, Louisiana, Florida

Name: Romona Taylor Williams

Organization: Montgomery Citizens United for Prosperity (MCUP)

City and State: Duck Hill, MS

Brief: Environmental Justice and climate change are interconnected. I'm deeply concerned that vulnerable, inland rural communities, in particularly in Mississippi are being left behind and unequipped to defend their communities against climate change. I'm also concerned our small rural towns and villages will not equitably benefit from infrastructure investments and Justice

40.

Want WHEJAC to do: State Environmental Quality agencies should be required to development citizen engagement, equity and justice plans as requirement for receiving ARP and Infrastructure funding.

Name: Danielle Koonce

Organization: Sampson County NC

City and State: Roseboro, NC

Brief: Sampson County is 2nd in the state in hog farm production, first in poultry farming which is largely unregulated, and it is home to a landfill that receives trash as far away as New York City. In addition, Sampson County, particularly in the southern part of the county is subject to flooding and vulnerable to wind damage from the yearly hurricane season. Despite the environmental trifecta of issues-CAFO operations, poultry operations, and landfill expansion and exhaust, many of Sampson County's residents are relegated to ground water wells which are shallow, frequently contaminated, and often challenged by the excess of hog waste, poultry waste, and natural disaster threats. Residents of Sampson County are all entitled to clean air and clean water and this is not the case. Residents have complained for years about the lack of clean drinking water and clean air and very little has been done on the local or state level. Rather, more and more resources are being pumped into the Agriculture industry in the county while resident's complaints are ignored. To complicate the issues even more, the Chemours plant in neighboring Bladen County has verified that PFAS spillage has occurred in Sampson County only exacerbating ground water well issues. The water issues will not be receding and to make matters worse, a biogas facility is being developed in Sampson County which will receive piped hog waste manure from multiple CAFOs throughout Sampson County and primarily in the backyards of Black and Brown people. How much can one county endure? How long will residents be ignored? The infrastructure bill has been signed. How much of that money will be allocated to rural counties like Sampson?

Want WHEJAC to do: "We need a Rural Water Infrastructure Project to ensure rural citizens have the option to connect to city/county water. The Rural Water Infrastructure Project will also fund water testing for every resident who wants their water to be tested. Water testing can be very expensive, and the cost is not regulated. Rural Water Infrastructure Project provides state-of-the art filtration systems for high-risk homes. Rural Water Infrastructure Project provides funding for local schools and local churches to support children's wellness and health. Rural Water Infrastructure Project provides incentives to industries that improve water systems, water usage, and water conservation. Rural Water Infrastructure Project provides scholarships to high school students that are considering a field in environmental-focused major. "

Full Name (First and Last): Mark Hilpert
Name of Organization or Community: Noise Free America
City and State: Raleigh, NC

Brief description about the concern: Gas powered leaf blowers are a clear and present danger to all Americans, from a business, education, health, social equity, and environmental aspect. As these fact sheets demonstrate, these machines disrupt business by creating extremely loud noises that prevent businessmen like me conducting work calls. They make learning harder for my child, they harm the health of those who use them (usually minorities and low-income people), and they are horrific for the environment.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Ban all gas-powered leaf blowers and any similar 2-cycle machines.

Full Name (First and Last): Libby Thomas
Name of Organization or Community: University of North Carolina - retired
City and State: Chapel Hill, NC

Brief description about the concern: Re: gas-powered leaf blowers, string trimmers and weed whackers, and even mowers: I am extremely concerned about greenhouse gas emissions, noise pollution, particulate pollution, danger/health of workers.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Perhaps it makes most sense to require manufacturers to stop making gas-powered leaf blowers and weed whackers/string trimmers (unless they can meet noise and emission requirements) since effective battery-powered options are widely available. Perhaps there may be a need for a buy-back of equipment, if older gas-equipment doesn't 'die off' quickly enough. Consider taking action on gaspowered mowers as well.

Full Name (First and Last): Joe Womack
Name of Organization or Community: Clean,Healthy,Educated,Safe & Sustainable Community,Inc.
City and State: Mobile, AL

Brief description about the concern: I would like to comment on how the lack of Environmental Justice has destroyed the Historic Community of Africatown, Alabama.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Please have the various agencies, both state and federal do their job and police the industries to not pollute and destroy lives and communities

Full Name (First and Last): Margaret Lowery

Name of Organization or Community: Noise Free America

City and State: Charlotte NC

Brief description about the concern: Noise pollution has gotten so bad. Constant LOUD base music from cars, leaf blowers, loud mufflers. It is ruining the quality of life. We must do something to control it for the health and happiness of our people.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Create laws to protect everyone from having to hear this and a way to manage the laws.

Full Name (First and Last): Vicki Jean Mann

Name of Organization or Community: QuietGA

City and State: Decatur

Brief description about the concern: The use of gas leaf blowers poses serious health risks for the lawn care company employees. Employees of these crews, who often work all day, all week, moving from one property to another, are constantly breathing and inhaling known carcinogens such as formaldehyde, benzene, and other fumes. Environmental health advocates remind us of studies of landscapers wearing monitoring devices revealing that ultrafine particle levels are 50 times higher around a gas leaf blower than at a clogged intersection at rush hour. Noise from gas leaf blowers commonly exceeds the threshold of 85 decibels at which permanent hearing damage occurs from extended exposure. Many lawn care services are not compliant with OSHA regulations and the workers are subjected to risks from cancer causing agents and permanent hearing loss. Most workers don't have a say in the equipment they're required to use. No one will benefit more immediately and over time from the elimination of gas-powered leaf blowers than the workers who use them. There is no evidence that regulations restricting gas powered leaf blower use have an adverse economic impact on lawn care companies, maintenance contractors or workers.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: For the health of workers, for the public health of all citizens and for our environment, it's time for our elected officials to recognize the urgency of this matter and eliminate the use of gas-powered leaf blowers. Respectfully, Vicki Mann on behalf of QuietGA

Full Name (First and Last): Diana Umpierre

Name of Organization or Community: self

City and State: Pembroke Pines, FL

Brief description about the concern: Two days ago, a satellite was intentionally destroyed by an antisatellite weapon test, that led to a cloud of thousands of new space debris in low Earth orbit and an emergency with ISS astronauts taking cover. You may have seen statements issued, including one by my former FL senator and current NASA administrator Bill Nelson condemning the reckless act. Secretary of State stated this will "now threaten satellites... vital

to all nations' security, economic, and scientific interests for decades to come, and ...significantly increase the risk to... other human spaceflight activities." BUT there's an even bigger intersectional crisis taking place for which the USA government shares significant responsibility. I'll quickly share some relevant environmental justice issues and disproportionate cumulative impacts not making headlines, that the White House, the CEQ and federal agencies, in particular the FAA, the FCC, the Dept of Defense and NASA, are failing to fully and holistically consider. (1) In Boca Chica, TX for instance, the FAA appears ready to issue a FONSI, a Finding of No Significant Impacts next month, for SpaceX to get experimental permits and licenses that would allow them to test, launch and land the largest rocket ever, with largest payload capacity ever (Starship/Super Heavy), without a full blown Environmental Impact Statement that fully examines indirect and cumulative impacts that will disproportionately affect low income communities of color, and indigenous tribal members, that have long endured social and environmental injustices at the TX border, and now gentrification motivated by one of the richest men on the planet. (2) Now, let me turn to FCC and the role they play in this mess. In 2019, the first batch of SpaceX Starlink satellites were launched from Florida. Since then, scientists have been in a race against time to analyze and communicate the impacts from the unprecedented growing number of mega-constellations of satellites. This has led to many meetings, some by the United Nations, and reports outlining the serious concerns, including significant risk of more catastrophic collisions with space debris and the role FCC plays by categorically excluding these satellites from NEPA reviews. This is where the intersection of issues come to play and how environmental injustices go on. Due to this Categorical Exclusion, FCC is failing to consider ANY environmental justice issues and failing to meaningfully engage the public. They are giving SpaceX and many other actors permission for thousands of more satellites as they rush to profit from this new space race, which even some in NASA have said could lead to irreversible and catastrophic damage to Earth's environment. My fear is that if FCC does not pause these federal actions as quickly as possible, if the White House and all federal agencies do NOT meaningfully engage EJ communities and reshape federal policies that are simply NOT keeping pace w/ this new space rush, the sacrifice zone will extend beyond Brownsville/ Boca Chica TX. My ask to you is to demand urgent involvement by the White House in what's happening at Boca Chica TX and to ensure ALL federal agencies are considering environmental justice in all actions related to this space race. Because we cannot afford our entire planet becoming a sacrifice zone.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

My ask to you is to demand urgent involvement by the White House in what's happening at Boca Chica TX and to ensure ALL federal agencies are considering environmental justice in all actions related to this space race. Because we cannot afford our entire planet becoming a sacrifice zone.

Full Name (First and Last): Portia Shepherd

Name of Organization or Community: blackbelt women rising

City and State: Uniontown, Alabama

Brief description about the concern: in 2021, the Whitehouse executive order 12898 revision included Uniontown. what is the update?

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: give an update on the executive order, reach out about the projects we are working on for health and wellness and also get an update on the investigation launch by the EPA against ADEM and others involved in what happen in the city of Uniontown.

Dear WHEJAC:

On the November 18, 2021, WHEJAC Webinar, the impacts of wildfire smoke on farmworkers and nearby exposed BIPOC communities were discussed. Left out of that discussion were the impacts caused by annual, widespread agricultural fires, especially pre-harvest sugar fields burning in and around the Everglades Agricultural Area, where nearly 400,000 acres of sugarcane fields are burned during the 8month long harvesting season. My husband and I are residents of Belle Glade in Palm Beach County, FL. Our health, as well as the health of the children and others in Belle Glade and surrounding communities, is impacted much of the year by the air pollution released by pre-harvest sugar cane burning. As a retired public-school teacher, I recall students missing days of school as well as being hospitalized due to the smoke. I urge you to consider some of the latest research concerning the smoke impacts caused by agricultural fires. A recent analysis of 10 years of data collected by the National Oceanic and Atmospheric Administration, by Stanford University's Environmental Change and Human Outcomes, shows a disturbing rise in the number of days that U.S. residents are breathing harmful smoke. The following quote from the research highlights the concerning amount of smoke our community is exposed to annually:

"A handful of ZIP codes in Florida recorded the worst smoke days in the U.S., even higher than California, including parts of Palm Beach, Hendry, Glades and Okeechobee counties. These ZIP codes are where most of the state's sugar crop is grown and where residents battle the smoke from burning sugar cane fields before harvest season."

I hope going forward WHEJAC will acknowledge the harms posed by man-made agricultural fires, particularly pre-harvest sugar field burning, in the same manner as you have regarding wildfire smoke. Furthermore, I hope WHEJAC will make efforts to advise the Chair of the Council of Environmental Quality (CEQ) and the newly established White House Environmental Justice Interagency Council (IAC) to promote burn-free farming practices, like green harvesting of sugarcane. Green Harvesting sugarcane will facilitate the use of the excess plant material currently burned off prior to harvest by the sugar industry as feedstock, biofuels, biochar, mulch and other bio-products. We hope that WHEJAC can be an ally in our efforts to seek environmental justice, mitigate climate change, and create new economic opportunities in the

field of green jobs associated with the burn-free alternative of green harvesting sugar cane in Florida. Sincerely, Anne Haskell

Dear WHEJAC:

On the November 18, 2021, WHEJAC Webinar, the impacts of wildfire smoke on farmworkers and nearby exposed BIPOC communities were discussed. Left out of that discussion were the impacts caused by annual, widespread agricultural fires, especially pre-harvest sugar fields burning in and around the Everglades Agricultural Area, where nearly 400,000 acres of sugarcane fields are burned during the 8-month long harvesting season. As a resident of X community impacted by the toxic pollution caused by pre-harvest sugar field burning, I urge you to consider some of the latest research concerning the smoke impacts caused by agricultural fires. A recent analysis of 10 years of data collected by the National Oceanic and Atmospheric Administration, by Stanford University's Environmental Change and Human Outcomes, shows a disturbing rise in the number of days that U.S. residents are breathing harmful smoke. The following quote from the research highlights the concerning amount of smoke our communities are exposed to annually: "A handful of ZIP codes in Florida recorded the worst smoke days in the U.S., even higher than California, including parts of Palm Beach, Hendry, Glades and Okeechobee counties. These ZIP codes are where most of the state's sugar crop is grown and where residents battle the smoke from burning sugar cane fields before harvest season."

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participate in daily activities should not be restricted by the selfish actions of humans. It is upsetting that residents in Belle Glade and neighboring cities are forced to adjust their lives around the constant air pollution from preharvest sugarcane burning. Marginalized communities west of Palm Beach County have multiple suggestions for green harvesting by sugar industries practicing preharvest sugarcane burning. As a member of the Stop the Burn, Go Green Campaign, I have worked alongside other passionate individuals in the community to advocate for safe alternatives. Acknowledgment from WHEJAC will show my community that our cries are heard because we deserve better. Sincerely, Christine Louis-Jeune

Midwest -3 Ohio, Indiana, Michigan, Illinois, Missouri, Wisconsin, Minnesota, Iowa, Kansas, Nebraska, South Dakota, North Dakota

Dear White House Environmental Justice Advisory Council: I am Laura Baker, a citizen advocate for past 11 years, speaking and sharing facts, on the 3 U.S. EPA Superfunds that has affect my family members and myself; including thousands of others:

- 1: Libby Montana Health Emergency, #asbestos exposure; EPA Region 8
- 2: Navajo Nation, uranium exposure, and recent Gold King Mine spill; EPA Region 9;

As I learned in 2014, that I was living near Cold Water Creek of MO.District 1, and all in St Louis region were facing the risks of West Lake Landfill, as in 2014 the St Louis County put into place a standing "Emergency Evacuation Plan" for the entire region due to the chemical reaction "smoldering event- EPA Reg.7 " , moving underground towards the radioactive wastes in the landfill.

- 3rd : West Lake Landfill and Cold Water Creek, EPA Region 7; radioactive wastes in St Louis region.

As I Registered for WHEJAC Meeting, during registration process, it would not complete the registration form as citizen, without Organization Info. So, I would also like to reconfirm, that I am a Supporting Family Member of these Organization (s) in my Registration:

- Asbestos Disease Awareness Organization, 11 Yr. Mbr.;
- Libby CARD CLINIC/ CARD Foundation.
- Mesothelioma Applied Research Foundation aka CureMeso, 11 Yr Mbr;
- Justmomsstl , Cold Water Creek, CHEJ, since 2014.

My Current Question and Concern is : How to Submit to WHEJAC Team, News Reports; Public Meeting videos; and Meetings etc., and Meetings that I have attended and Presented at; e.g. the : October 26, 2015 Public Meeting with EPA Region 7 and CDC Panel Members, that I Presented at; as the West Lake

Community Advisory Council Minutes of this meeting has My Name Incorrect in *their Minutes

of/in Page 2, Q4. And as I recently Presented my Concerns on these 3 EPA Superfunds of my family mbrs/self, on/at the 1st June, '21, to Amanda Hauff of the EPA Chemical Safety Division Webinar Meeting; how to Submit this meeting it to you. Also, I'd like to Submit the Libby Legacy Project Educational video(s) to you, that was presented to all citizens in the Libby Montana Health Emergency. Can Direct Links to Videos, and News Reports, etc..., be Submitted to you via email? I would appreciate any assistance and advice that you can provide re Submissions. Thank You, Laura Baker, Citizen Advocate

Name: Sarah Bailey

Organization: Flint, MI Bridges Into the Future

City and State: Flint , MI

Brief: Air quality in an economically depressed community as a result of a decision by a neighboring community.

Want WHEJAC to do: Advise in how communities adversely effected by decisions of neighboring communities that do not consider environmental issues. Should there be a requirement that these communities must get a variance from the effected community before any action can be taken?

Full Name (First and Last): Carolyn Marsh

Name of Organization or Community: Save Whiting and Neighbors (S.W.A.N.)

City and State: Whiting, IN

Brief description about the concern: I live in Whiting, Indiana, Region 5, USEPA. It is in the industrial corner of NW Indiana next to the industrial area of Southeast Chicago, Illinois. There are steel mills, a BP Whiting Refinery, chemical plants, and dozens of other industries under USEPA air and water permits. Also, two Confined Disposal Facilities. The CDFs are about a couple of miles apart at Lake Michigan.

Worse is that the Indiana cities of Gary, East Chicago, Hammond and Whiting are in the Great Lakes Grand Calumet River Area of Concern (AOCs). The AOC's Remedial Action Plan is the blueprint for restoring environmental beneficial uses in the region. The RAP is managed by a Citizens Advisory for the Remediation of the Environment (CARE) Committee. The CARE committee has been in existence for about two dozen years. It is composed of government officials, industry and NGOs, but has few independent active environmentalists. There are serious AOC conflicts. There are multiple restoration projects by The Nature Conservancy to restore areas with Great Lakes Restoration Initiative, Great Lakes Legacy and other federal funds when industries continue to pollute and violate their air and water permits. Recently the CARE committee decided to revise one of the Beneficial Use Impairments. In oral remarks it was indicated the restoration projects to pre-settlement conditions was not achievable. This is a very important revision as millions of dollars were spent on restoration projects to restore industrial areas to native prairie and wetland. The CARE committee refuses to put the revision in writing that explains why the revision is necessary. As an EJ area, we are exploited now more

than ever. We suffer increased industrial pollution and recently Indiana passed legislation to remove protection for isolated wetland language to favor big agricultural farmers and home builders. The USEPA should not continue to reward states that fail to enforce EPA air and water permits. with more funding without accountability.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: We need complete accountability from the Indiana DEM Grand Calumet River Area of Concern committee, which needs new leadership.

Full Name (First and Last): robert shobe

Name of Organization or Community: justice for beniteau residents

City and State: Detroit, Michigan

Brief description about the concern: air pollution in my backyard

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: create a nationwide standard for air quality and the impact of it on people in residential areas.

Full Name (First and Last): Jan Boudart

Name of Organization or Community: Nuclear Energy Information

Service City and State: Chicago

Brief description about the concern: Bring attention to WHEJAC of the EJ communities created in the U.S. (and the world) by the fission project, from the Manhattan Project to today; and to bring radiation EJ communities into the cumulative effects discussion.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: In deference to the fact that radiation knows no bounds and in consideration of people who may be near fission projects, that these projects be phased out as quickly as possible, so routine emissions and nuclear waste be no longer increased. ¡Stop making spent nuclear fuel waste!

Full Name (First and Last): Lashaya Darisaw

Name of Organization or Community: Michigan United, Volunteer

City and State: Flint Mi

Brief description about the concern: Environmental racisms, Ajax and our Governor

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

Last year, Governor Whitmer on August 5, 2020 declared racism a public health crisis with Executive Directive 2020-9. What's happening with Ajax asphalt plant is Environmental Racism. Yes, we need to fix the damn roads but Both HUD and the EPA who has spoken out about this being a civil rights issue. Shortly after on September 23, 2020 Governor Whitmer Announces what she called "Bold Action" to Protect Public Health and Create Clean Energy Jobs by Making Michigan Carbon-Neutral by 2050. This was also with an Executive Directive 2020-10. To quote from tv 6 "To ensure steady progress toward this goal and prevent irreparable harm to Michigan's ecosystem, residents, and businesses" and to quote from her specifically ""The science is clear – climate change is directly impacting our public health, environment, our economy, and our families," said Governor Whitmer. "This dangerous reality is already causing harm throughout Michigan, with communities of color and low-income Michiganders suffering disproportionately, which is why I'm taking immediate action to protect our state. We owe it to our children and grandchildren to leave them a cleaner, safer and healthier world." How has her silence around the Ajax permit demonstrated this commitment to both flint and the black community as stated? What we don't need is another environmental crisis. These kids that she spoke about protecting are the kids from this public and low-income communities. We've seen this stand back approach before during the water crisis and governor snyder. These same kids have already been exposed to lead in the water crisis. These same kids, then were exposed to RADIATION poisoning. These same kids already have health issues due to an incinerator being present and now we want to impact these black kids more? We need governor whitmer to keep her promises to the city of flint, low income and communities of color. She received 25,000 in issue ad contributions from Ajax and quite frankly seems that we are being sold out for a rather miniscule amount of money just as Governor snyder did. I rather her legacy be of help instead of last min changes due to pressure. It seems as if she is her promises have been for show with no real plans of change. Let's not forget her promise to give flint clean drinking water that never happened that even celebrities such as judge mathis has spoken about. we have suffered enough. She can't say because it is because she doesn't get into state affairs as she created

MICHIGAN INTERAGENCY ENVIRONMENTAL JUSTICE RESPONSE TEAM with Executive Order 2019-06. She stated specifically that she would be in constant contact and get regular reporting to ensure that all Michigan residents benefit equitably from the protections and policies of state government. To achieve Response Team and Office priorities, four work groups were formed. Representation from the departments represented on the Response Team take part in the following work groups: The Communication and Outreach work group focuses on fostering public engagement. No resident of flint was made aware that this plant was coming which violates having public notice. This is something the communications team can investigate. The Research and Data work group is developing an Environmental Justice screening tool specific to Michigan which will identify areas of concern based on environmental data and health impacts. This community needs a cumulative impact study. The EPA has already spoken about this publicly. The Planning and Policy work group is charged with recommending and creating pathways for Environmental Justice to be infused into state governance. This group should be coming up with a way to fix the " damn " roads that

does not create another environmental crisis.

Full Name (First and Last): Anthony Paciorek

Name of Organization or Community: Michigan United

City and State: Flint Mi

Brief description about the concern: Flint Ajax Air Permit appeal, Another Environmental racism issue in Flint.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

Thank you WHEJAC And Fellow Environmental Justice organizers, I thank you for your time and attention today in allowing me to speak to you directly. My name is Anthony Paciorek, i'm an Environmental Justice Organizer with Michigan United in Flint Mi, I'm also a member of a Stop Ajax asphalt coalition trying to stop the permitting of an Hot Mix Asphalt plant in Flint Michigan. We have been fighting and resisting the permitting process since we found it posted on our state agency EGLE (EGLE - Environment, Great Lakes & Energy - State of Michigan website in a dark corner on July 1st. The neighborhood that its proposed to go in is in a predominantly minority community in low-income housing. The ward that the plant is in holds the largest amount of parks and green spaces in the city ,13, including not to far away kearsley reservoir which is a backup source for our drinking water. My State agency tasked with informing the public failed to this date. Residents in that community are still unaware of the plant's intention in their community. Through the efforts of our coalition, we have been able to organize and mobilize citizens in the city of Flint and the surrounding neighborhood of the asphalt plant. We have successfully pushed back the permitting process 5 times, that's unprecedented in our state and should show the public support in the matter. I wish in my job that I could propose something so unfinished and under researched that I would have to put it under review to be set back 5 times and get approved. I would be embarrassed as a professional, those in these agencies as well as my governor should be ashamed. it's my opinion that this sort of work is unacceptable in regards to environmental justice. The Citizens of Flint are going through 2 crises right now that highlight environmental racism, the ongoing Flint Water Crisis and Covid-19. My city Doesn't need the Ajax Air crisis too. I would like to take the time to address a few points of concern. The decision to site the asphalt plant on Energy Drive poses environmental risks to the surrounding community and those risks have not been properly evaluated by EGLE. Medical reports state Asphalt fumes exposure can lead to cancer, lung cancer, and asthma. This community already is predisposed to high rates of asthma and other health issues from previously having an incinerator plant and other industrial pollutants in the environment of their neighborhood. The decision to site the asphalt plant likely violates the civil rights of the surrounding low-income, predominantly Black community. The plant is very close to St. Francis Prayer Center, is 1,550 feet from River Park apartments and less than .5 miles from Ridge Crest Townhomes, and is close to other meeting centers, parks, and waterways. This community is already exposed to extremely high levels of pollution according to EPA's EJ Screen tool. No agency has considered the cumulative risks or impacts associated

with adding another facility to this frontline community. The failure to consider cumulative risks or impacts in permitting leads to discrimination against low-income communities of color, because those communities face the biggest threat from a permitting decision. Without the cumulative impact study, there is no way for the most impacted communities to demonstrate the injustice that would stem from the issuance of the permit.

Title 6 violations are pre-established in that neighborhood in environmental justice issues. The neighborhood had title 6 violations in 94 regarding an tire incinerator plant in the same neighborhood. The Governor and the agency she created to deal with these situations has a duty and responsibility under Executive Order 2019-06.in which she creates EGLE and tasks it with, (D) Recommend mechanisms for members of the public, communities, tribal governments, and groups, including disproportionately burdened communities, to assert adverse or disproportionate social, economic, or environmental impact upon a community and request responsive state action. The Stop Ajax asphalt coalition understands and expects that Governor Whitmer is the One with the power and responsibility to ensure The Environmental Justice of our community. The Citizens of Flint Recognize that Agencies such as the EPA and HUD have been involved and We in the city of Flint appreciate the weighing in which again, shows the support of the public. We understand a bigger problem in our state is that there are agencies that have the power to stop such issues, But would rather claim ignorance and cry for the help of the very same epa that told them what they needed to do.the Gov agencies tasked with the mission of protecting us are refusing to protect us. This feels, Especially to the citizens of Flint , it feels like we are repeating an unnecessary history and dread another environmental crisis. The coalition has been holding vigil events or as members of the coalition call it “Death of the community” if This Plant goes up in that neighborhood, many feel it will kill the community. The Fine Particulates that would be released into the local air that is already polluted. This leads the community to be predisposed to high rate of asthma and other conditions from previous pollutants exposure in the neighborhood by other industries. My Request and expectation of the National Environmental Justice Advisory Council is to Continue to show public Support in the communities ongoing Resistance of The Ajax Asphalt plant in Flint MI and other communities like ours Facing continual environmental racism issues. We Humbly ask that Members take the time to reaffirm their support and add their names to the 90-day appeal form. Today we have 87 days to appeal it. We also request the further support of the EPA to continue to find ways to strengthen its agency in dealing with Matters like ours across the nation, to hold those accountable for ignoring the very same suggestions your agency proposed and then claim they need your help in. We also request to be put on the list of communities to be visited by the deputy directors’ visits of impacted cities. The citizens of Flint have gone to the appropriate channels of objection, from gathering city council support, going to township hall meetings, canvassing the neighborhood, talking with EGLE, hosting multiple issue awareness to talking with our representatives, to taking it to the Governor herself. She ran on a campaign of fixing the damn roads, but fixing the damn roads shouldn't come at the expense of our community or other poor and minority communities. The Governor's stance on industry contradicts her campaign promises of being there for the community of Flint and other environmental justice cities and we must hold her responsible. Her Silence allows yet another

abuse by environmental racism by the very same governor sworn to protect. Thank you.

Good evening. My name is Brandi Crawford-Johnson. I am an EJ activist from Kalamazoo, Michigan. I would like to thank the WHEJAC members for allowing me to speak and thank you all for your advocacy.

It is important for local, state, and federal governments to work together on environmental justice issues but that is not happening in Kalamazoo, Michigan. We have a toxic papermill and wastewater plant currently expanding and our community is terrified. Despite the fact that we have filed a class action lawsuit against the mill, and I have filed civil rights complaints against the city, EGLE and the county brownfield, there is still no action to protect residents. I have worked with doctors and atsd to provide reports to MDHHS to do an air quality investigation to the exposures that are making myself and my frontline community so sick and stressed. I am still sending MDHHS documents for review, weekly and begging them to hurry. I am hopeful that this report will help achieve justice and help to relocate residents away from these poisons asap but it is hard to trust them. Hiding public health risk information from the public is inhumane and dangerous. We must inform the public of their risks and EJ scores right now. Graphic Packaging International, the paper mill expanding on their own brownfield's, with EPA and EGLE grant money, is the most toxic polluter in our region and in the top 60 in the United States. They are increasing their greenhouse emissions by 200%. GPI doesn't clean up any of their contamination and use zero pollution prevention. The criminal toxic spills are ongoing. There has been zero enforcement or fines given by egle. Brownfields are meant to be cleaned up! They are not meant to be used for expansions to further pollute front line communities. There wasn't even a health impact assessment done, despite hundreds of air complaints over a ten-year period. EGLE gave them a permit to expand despite residents begging for their lives at the permit hearings. EGLE continues to discriminate against disadvantaged communities as it relates to enforcement and permitting all over Michigan. Pollution is poison but these agency officials do not care people are sick and dying! The Biden administration and CEQ need to dismantle EGLE and some of the EPA. Start over with officials who actually care if people get sick and die. I will continue to fight for all humans and the environment. I will use every tool in my bag until we achieve environmental and civil rights justice. Frontline communities being exposed to poisons should be treated as a public health emergency. The CEQ needs to provide action now not later.

Every person that dies because polluters and profits are being put over human lives is murder. Most of these communities are superfund sites but have not had the designation. The EPA can provide relocation assistance to superfund sites. This is an action that can take place now. Let's get these humans out of harm's way and show them the government does care. Our world is on fire and our families are being poisoned daily. We are all here together to fight and protect our future generations from harm for a reason. I'd like to Thank Dr. Whyte for recently offering to help bring more awareness to the severe environmental injustice happening in

kalamazoo. We can do so much more to help people if we all work together for justice. Thank you all for your time and effort. God bless you all.

TO: White House Environmental Justice Advisory Council

FROM: Leatra Harper, Managing Director (#46) SUBJ: Testimony of 11/17 (truncated to 3 minutes for verbal testimony)

I am Lea Harper, Managing Director of FreshWater Accountability Project in Ohio. I would like to paint a picture of the difference between how Appalachia Ohio has suffered from environmental injustices throughout generations, now exacerbated by the fracking industry. As an example, in February 2018, XTO, a subsidiary of Exxon, operated a frack well that exploded in Appalachia Ohio. Volunteer firefighters quickly responded and evacuated the families in the region and local law enforcement immediately closed off access from the roads. A no-fly zone was established. The pad spewed methane and other toxins from deep underground into the surrounding area. It took 20 days, but the spewing methane was finally stopped. Our colleagues from Earthworks were in the area with the FLIR camera. I asked if they could make a detour to Powhatan Point to see how much gas was actually being released. That night, we met, and the camera operator was obviously shaken. He said he filmed the Aliso Canyon methane release, and this one was worse (<https://www.youtube.com/watch?v=aPHoLrGGI-M>). I thought – how could that be? What happened at Powhatan Point in Ohio was called a leak – not the catastrophe that it was. There was little admission of the seriousness of the situation at the time, even though 100 people were evacuated for weeks. It took satellite data to find out a year later that the methane “leak” was one of the largest ever. When Aliso Canyon was spewing, we heard about it every day on the national news. Public outrage and political attention were focused on that catastrophe. In SE Ohio it appeared to be business as usual, even though the methane released was estimated to be twice that of Aliso Canyon at 80 tons an hour for nearly 20 days. The people who were affected had symptoms of toxic exposures that were downplayed. The company was fined \$850,000 in a settlement agreement. XTO donated \$25K to the local emergency management agency. What a difference between an affluent community in California and rural Appalachia. Highlighted by the fact that we learned recently that the claims for Aliso were settled for up to \$1.8 billion, over 2000 times what XTO was fined.

In January 2019, there was a pipeline explosion in Noble County, Ohio, causing fires at three nearby homes. It was amazing no one was killed. Columbia Gas was fined only \$250,000. 5 years before that, the Statoil Eisenbarth pad had an explosion (<https://youtu.be/CwVL0L64Pcw>). Immediately, there was a massive fish kill of an estimated 70,000 fish. Hardly anyone knew about that one. Once again, it was downplayed, and regulators fined the company \$225,000. We wonder how such a small fine like this could cover the cleanup of toxic, radioactive frack waste with proprietary chemicals that was released all the way to the Ohio River? These are the larger examples of the lack of accountability for harms

by the fracking industry in Ohio, and there are many more smaller examples, with intentional, illegal dumping of frack waste hidden behind hills and off the back roads. This all adds up to the fact that there's money to be made with little accountability or cost for harms. The fines could be just the cost of doing business in a dirty, highly unregulated industry of fracking, especially in Ohio, the frack waste capital of the world. The Ohio Department of Natural Resources is supposed to regulate fracking, but they do not have the will or the legislation to properly protect people who are exposed to fracking and frack waste pollution, which is now migrating underground and communicating with unknown, abandoned oil and gas wells, sometimes spewing into surface water and soil. It has been 8 years, and yet, the ODNR has not instituted proper protections for fracking and frack waste, which was magically made non-hazardous through the stroke of a pen in DC. The Halliburton Loophole as it is called was obviously a requirement to make the industry profitable, which it still is not in many cases.

Fracking has really accentuated the Environmental Justice issues in Ohio. The only reason the industry could operate as it does is through the promise of jobs, People are being polluted, threatened and exploited with money paid in fines in order to continue business as usual. Many people who live in the Ohio Valley are afraid to speak out because of the desperate need for jobs. Anyone who questions the jobs promise is portrayed as an outsider even though they live there – they cannot match their efforts for justice against the industry's money and greed. People want to believe that their representatives and regulators have this handled because they have enough to do to take care of themselves while making a living on sparse wages without benefits. Who has the ability to organize and protest when sick and impoverished?

Even though Ohio is ten years into fracking development, the promised jobs and prosperity have not materialized. Even so, local officials want money so badly for schools and infrastructure repairs that they will abide the industry's harms and bullying and promote fracking and even a huge, toxic petrochemical complex. JobsOhio used public funds to entice the PTT Global cracker plant with \$70 million that could have been spent to build the school that the cracker plant promised. The frackers find a need – which is easy to do – and they throw a few thousand here and there to schools, ballparks, volunteer fire stations and community colleges to ensure that no one dare to criticize them. The people in SE Ohio themselves may not like it, but they say there is nothing anyone can do, and history has proven them right. I have tried for ten years to organize, educate and advocate for better jobs for the region, which are available to other regions, but what company would want their health care costs to go up because they have located in a region that is known for toxic air and water contamination? DuPont still operates with PFAS chemicals in the Ohio River, contaminating drinking water and shutting down water departments. The increasing costs to maintain drinkable water from the Ohio river for the 5 million people who depend on it are passed along to the ratepayers. The region becomes increasingly poor as boom industries become a bust, and the LLC's leave with their profits and dissolve when the costs of capping wells, health harms and clean up become too much. Once again, the taxpayer must foot the bill, as we are doing now, with the cost of sealing abandoned oil wells and remediating from acid mine drainage into perpetuity. It is reprehensible that the politicians that are elected and re-elected, do not advocate for the

betterment of the Appalachian region because all they seem to care about is the revenue from jobs – even toxic jobs that will make the workers sick. We need healthy, desirable jobs and training for our young people and displaced coal workers in growth industries. We need advocates within the Government who will provide funding and grant opportunities to improve our deteriorating infrastructure and build new industries perfectly suited for Appalachia like tourism, agriculture, renewable energy programs so the region is not plundered by polluting and exploitive industries like fracking and petrochemicals. Bonds and severance taxes must be increased so Ohio taxpayers do not have to foot the bill for the damages the industry leaves, Because of the opportunity presented by the American Geophysical Union’s Thriving Earth Exchange Program and a grant we were given, we began our own air monitoring program. We have found toxic levels of airborne pollutants and even radioactivity tied to fracking, its infrastructure like compressor stations, and frack waste near homes and schools. We complain to the agencies, but no one comes with their own equipment to verify the results. The apathy that comes with coping with a loss of hope is palpable in this region of Ohio. Monroe County where the Powhatan blowout took place has a poverty rate of twice the national average. Deaths of despair from the opioid epidemic are an indicator of the loss of hope for a better future in the region. “The Appalachian Region continues to experience higher rates of opioid misuse and overdose deaths than other parts of the country. While the impact of the burgeoning epidemic is being felt nationwide, states and counties within the Appalachian Region are particularly hard hit, with opioid overdose rates more than double national averages” (<https://healthinappalachia.org/issue-briefs/opioid-misuse/>). People need jobs that will pay a living wage that will not make them and their families sick. It is hoped that the infrastructure package will make a difference in people’s lives so that they will see that they are not used, abandoned and forgotten by the profiteers who were enriched by their labor and the resource curse of the minerals and water that should make the Ohio River Valley the most prosperous region in the state rather than the poorest. Once again, the future will show that the region would have been better off in the long run if a polluting industry like fracking would never have come, because there is not enough money in bonds and assurances to cap the frack wells. Injection wells proliferate and some have begun to leak, and who is going to cap them when they are done? The industry’s playbook to externalize their costs upon the community and taxpayers is playing out before our eyes, and our elected representatives are turning a blind eye to it. Policies need to be put in place so that people are not enticed by desperately needed jobs to the point that they themselves become a sacrificed resource to the benefit of outside interests who would never live next to fracking or its toxic infrastructure themselves. We need campaign finance reform so that the industry does not hold sway over our elected officials who are afraid to cross them by holding polluters accountable for the harms. We can’t even get a fair severance tax proposed or passed in Ohio with the state ranking among the lowest in oil and gas producing states. Instead of making the industry pay a fair share, Ohio continues to try to subsidize and support fracking by providing cheap disposal of toxic frack waste, even spreading it on our roads as a cheap way to handle their biggest problem – the massive amounts of toxic, radioactive waste that has been generated that is falsely labeled as non-hazardous through another big example of legislative compromise if not corruption.

Appalachia deserves better, but the region is not given a chance. Another example of how the Ohio River Valley is not given the opportunities other regions are given in Ohio is the amount of money set aside for the Great Lakes in the Bipartisan Infrastructure Deal. We do not see that the Ohio River is given as much consideration by state and federal policymakers. While the Ohio River continues to be polluted without adequate protections, the needed funding for protections and remediation is not forthcoming. Cancer death rates are higher than the national average along the Ohio river, and that trend will likely continue as polluting industries locate in the valley for its rich resources and water.

How many more people will become sick just because they cannot leave or don't want to give up family and friends or they have to take the only jobs offered, even if the jobs expose them to toxic chemicals? We have not given up on preserving and protecting the region's beautiful hills, streams, rivers and longterm wealth of clean air and water against the short-term interests of fossil fuel greed, but we are ignored and threatened, stressed and tired, underfunded and marginalized as anti-jobs. In fact, when presented with the downsides of fracking and petrochemical and the opportunity for a better economy, a local official told our colleagues that he wouldn't join us because he didn't want to get people's hopes up for an alternative vision. That shows how much we need programs and policies that can pivot the region away from dirty, extractive industries. Justice can come to Appalachia, but it is not up to the people who live there who have had to tolerate bad policies right along. It is up to the powers-that-be to do the right thing. Then the hard-working people of the region may have a chance to improve their lot without having to leave their roots for a better life. The council asked for suggested solutions. A big start would be to pull the plug on the PTT Global cracker plant project in Belmont County, Ohio and replace it with training and jobs to build affordable housing, replace crumbling infrastructure, build renewable energy projects, provide programs for energy efficiency improvements, remediate contaminated soil and water, implement sustainable agriculture programs, build out broad band, invest in tourism and recreation and new schools and provide seed money for small businesses – the list can go on and on. Let's ask residents in the region what they want for their future economy and deliver it to them rather than forcing upon them what outside others want for profits that will leave the region. Appalachians will get their hopes up when they see it is possible to achieve the future they want.

Gregg Newsom, Detroit, Michigan

This written comment is submitted in addition to my spoken comment made during the WHEJAC public meeting on November 17-18, 2021. Details around this issue are changing rapidly so this comment reflects what I am aware of as of November 18, 2021.

I would like to thank the White House Environmental Justice Advisory Council for this opportunity. I would also like to recognize the environmental justice communities across the country and their righteous appeals to this body. I also want to reflect and lift the commenters from Flint; the latest victims of the discrimination and injustice inherent in the state of

Michigan's air quality permitting process and the Michigan Department of Environment, Great Lakes and Energy, or EGLE. My name is Gregg Newsom and my partner, our 3 young children and I live on the eastside of Detroit. Our house is in what is referred to as the 'impact area' of the newly expanded and massive Jeep Stellantis Detroit Assembly Complex. I am also an organizer with Detroit People's Platform and have been working with my neighbors on Beniteau Street, who live in closest proximity to the plant. While my family and I live only blocks away from the plant and are impacted by the expansion, I'm presenting here to support the efforts of my neighbors on Beniteau. It is my belief that if the impact of this site is adequately mediated and remedied for those living right up on the complex, my family and everyone living around the plant will benefit. Since the expansion was announced in early 2019, EGLE has hosted 3 public hearings and approved 2 air quality permits. My neighbors and I, along with advocates and experts have participated in each public hearing EGLE has hosted. During these hearings a primary concern, repeated through the public comments is the extreme asthma hospitalization rates in the zip codes around the site. Experts called for environmental, economic, and public health impact assessments to be completed before making a decision. Others called out the environmental racism inherent in moving ahead with the expansion in a nonattainment zone for ozone by decreasing emissions at a suburban plant to offset the increase in our 94% African American, majority Black backyards. A recent letter to EGLE from elected officials noted that EGLE was aware of a high level of preexisting respiratory conditions in the area before granting permits to the company. Solid data, emotional pleas, and righteous outrage were shared but couldn't be heard. EGLE considers air quality permits in a vacuum and by doing so makes the residents most impacted invisible. EGLE's website reads "Comments EGLE can consider include technical mistakes, grammar and spelling mistakes, other rules that should be considered, and other items which should be included or removed." Further, and more to the point, "Some issues EGLE cannot consider include popularity of the action, emission sources that are not part of the action, indoor air pollution, traffic, hours of operation, noises and lighting, and zoning issues." This is where EGLE's inherent race-problem perpetuates itself. How is it possible for our state regulators to protect frontline or environmental justice communities they can't see or hear? The parameters they have established to make their decisions also become the justification of their abuse. They can't consider the national study linking long-term exposure to air pollution and COVID-19 mortality. They can't consider that in the U.S., Black children suffer disproportionately from asthma, and are seven to eight times more likely to die of asthma than white children. The fact that communities of color face nearly 40% more exposure to toxic air pollution than white communities is not just lost on EGLE, it can't be heard. The new Jeep Grand Cherokee L went into production this summer and residents have reported an increase in odors and health issues since. EGLE has issued multiple violations that stem from their having to respond to resident complaints. Being overwhelmed by paint fumes, burning eyes, itchy throats and headaches, Beniteau residents have been calling the state's Pollution Emergency Alert System (PEAS) hotline. On Monday, September 20, 2021 EGLE filed a violation notice against Stellantis. A second air quality violation was issued on Monday, October 14th. On Wednesday, November 3rd a third Violation was issued against Stellantis' Mack Assembly Plant. These violations and the subsequent engineering issues

uncovered in the process have not been adequately responded to by EGLE or Stellantis. Jeeps continue to roll off the line and as this statement is being prepared, fumes can still become overwhelming on the street. Residents continue to call in with complaints. The fact that they are being made to live through violations and over-exposure has led many residents to believe that EGLE exists only to facilitate the operation of polluting industries rather than to protect the most vulnerable and disproportionately impacted in Michigan. Earlier this month, on November 8, 2021, my neighbors on Beniteau filed a Title VI Civil Rights complaint against EGLE with the EPA. The complaint focuses on the racial disparities in the state's permitting process and details the impact of EGLE's decisions on the residents who live closest to the plant. "When my eyes start to burn, I start to become more afraid of all the things I can't smell than those that I can" one of my neighbors shares in the complaint. Another neighbor on Beniteau shares "The migraine headaches, and the burning in the eyes, and tightness in my chest... I just know when I'm out too long, I get that way, but I can't say today is going to be worse than tomorrow. I know yesterday it was just too much. I was crying." I am also submitting the full Title VI complaint with this comment. I encourage council members to read these stories from residents who have been greatly impacted by the failure of state regulators. The complaint states that: "[t]he decisions by Michigan's Department of Environment, Great Lakes, and Energy (EGLE) allowing Stellantis to significantly expand its facilities continues the discriminatory legacy of requiring communities of color to bear the disproportionate burden of the industrial pollution generated by all of society. Unfortunately, the Stellantis Complex ("Facility") does not exist in isolation." Last Minute Update: Based on public pressure building around the violations and the Title VI Civil Rights complaint on November 18, 2021 EGLE issued a press release stating that they were going to fine Stellantis. While a step in the right direction, the statement is extremely non-committal. Residents' current post-violation needs include:

- Immediate emergency relief including but not limited to emergency housing, windows, roof repair, weatherization, HVAC improvements, air purifiers, filters, public education, medical and health services.
- Remedies that include an "out of the box thinking" Supplemental Environmental Plan (SEP) that adequately responds to resident need for home repair, voluntary relocation and others based upon individual assessment.
- Rapid response through a fast-tracked enforcement process with EGLE and the EPA on the Title IV Complaint.
- Environmental, health and economic impact assessments must be conducted to determine the most impacted and most vulnerable. Residents have requested individual assessment to determine what will be needed to make their homes safe to live in or for successful voluntary relocation. Assessment, which was not included as part of the permitting process, is essential to correcting course and determining adequate remedies. It is also vital that assessment be considered as part of EGLEs 'job' and not as a remedy. Assessment is a tool to be used to determine remedies. To conclude, we live in a majority Black city that has been

subject to the suspension of democracy through emergency management and economic restructuring through municipal bankruptcy. In Detroit we see violence against Black bodies, families and communities show up every day in public policy and decisions made by those in power. Detroiters have witnessed this through mass water shutoffs, mass foreclosures and evictions, and through a massive redistribution of public wealth and resources into the hands of developers that are predominantly wealthy and white and to global corporations like Ford and Stellantis. The fact that decision makers and regulators approved this project based upon economic promises and flawed engineering models rather than the environmental, health and economic impacts of those most directly impacted has led to this situation; Detroiters are being made to live in and through violation after violation. I ask your support in addressing the injustice inherent in the states' permitting process and in pushing for relief and remedy for Beniteau residents and anyone whose air quality and quality of life has and is being impacted by these failures. Again, I would like to thank the White House Environmental Justice Advisory Council for this opportunity.

Dear council,

Nuclear Power plants produce radioactive waste that has been made worse by decades of inaction. Clearly, the nuclear industry is determined to unload its waste at the doorsteps of working-class, BIPOC communities. Even today, as the federal government deploys forces to U.S. cities to impose its will upon protesters for racial justice, the next generation of nuclear energy – in the form of “advanced reactors” – is poised to move closer to urban centers. Black, Indigenous and people of color communities have a lot to be angry about. Their outrage should include demands to protect people of color from exposure to hazardous waste for the sake of nuclear industry profits. Peace and Health - Stephanie Bilenko - LaGrange Park, IL 60526

Southwest -4 Texas, Oklahoma, New Mexico, Arizona

To the White House Environmental Justice Advisory Council, As a front-line survivor of environmental racism, I wanted to share with you some of the devastating impacts that we, as people of color, are experiencing and the callous responses to our suffering. Attached is a summary of a current campaign that is calling for officials to act by permanently closing an injection well that has spilled and contaminated our local area. In spite of the presence of life-threatening toxins such as methane, hydrocarbons, a host of other forever chemicals, and the likely pollution of the aquifer beneath our land and beyond, no one seems to care. The Tx headquarters for Choices Interlinking Alliance is the site where much of the devastation reported has been observed. An EPA-sanctioned problem-solving committee has been meeting with our local group periodically for several years with no resolution. The offending polluter has stated that unless an official from the government identifies them as being responsible, they are not willing to admit to responsibility. Even with abundant evidence that demonstrates who the offenders are, no one is willing to act (see attached timeline and PowerPoint). In the mean while people's lives

continue to be threatened and an entire community is left with the uncertainty that the spills, uprooted trees, saturated grounds, unexplained deaths, and terror will reoccur. While the injection well in question is currently voluntarily shut-in, it can be reopened at any time. No record for a drilling permit can be located. The lack of access to a permit raises further questions as to whether or not the well was drilled without a permit? An environmental assessment was conducted but testing was done far away from a large sinkhole and visible spills which were of the most immediate concern. Even so, evidence of life-threatening chemical pollution was found. The preferred mantra seems to be *that's not our domain*. The lead team members of the problem-solving committee appear to acknowledge that this is a regulatory concern but no one is regulating the injection well. With no regulations, responsible parties are unwilling to move forward with any attempts of restorative actions. I understand some states are moving towards removing the regulatory control of injection wells from state bodies. If the states are unwilling to act who will protect the lives of people and the vitality of the planet? Official bodies that were designed to help mediate between communities that have been harmed and regulators are acting as though they are paralyzed and unable to act. A history of inactions to protect the lives, health, and environments of Black and Brown people has led to what appears to be a sanctioned habit of inaction. This habit may well be the source of a significant epicenter that not only destroys the lives and communities of Black and Brown people but a source that enables the acceleration of climate change. Unchecked and monitored environmental harms hurt everyone. Please review the attached PowerPoint and timeline that offers some visualizations of what has happened. This event could have been prevented. Can the Council help to stop further devastation by helping us to identify and remove the man-made barriers that have been created? These barriers along with the intentional non-reckoning of the environmental and health-related harms committed against Black and Brown people require urgent structural interventions. Thank you, Cozetta LaMore, Choices Interlinking Alliance

Name: Miguel Juarez, Organization: El Paso, Texas Community, City and State: El Paso, Texas

Brief: "Texas is one of 7 National Environmental Policy Act (NEPA) assignment states, which means that Federal Highway Works Administration (FHWA) has ceded all of their environmental review, except civil rights violations, to the Texas Department of Transportation (TxDOT). This is the Fox guarding the hen house. For examples, in El Paso, Texas, the state is building out a highway system from the U.S./Mexican border to the interstate to accommodate future truck traffic. It proposes widening a sixmile stretch of Interstate 10 through the urban core. It also proposes adding frontage roads , bringing high speed traffic closer to historic, minority, and low-income neighborhoods. All of this will increase emissions, heat, noise, vibrations and concurrent impact on these largely Latino neighborhoods. TxDOT delivered itself a classification letter that determined Environmental Assessment (EA), not a full Environmental Impact Statement (EIS),

was sufficient to evaluate this project. How is it possible that EA is sufficient to assess the myriad of complex interactions between the freeway and adjacent residents? These are Federal interstates, built with federal money. FHWA should be clearing the environmental review required by Federal law, not state law. According to TxDOT, ""The assignment program does not preempt or interfere with any power, jurisdiction, responsibility or authority of an agency excluding FHWA, under applicable law and regulations."" Citation: The MOU tat allows this can be found here - <https://www.txdot.gov/insidetxdot/division/environmental/nepa-assignment.html>

Want WHEJAC to do: "Given Texas' history and recent behavior, we desperately need a review of TxDOT's processes and results. It is hard to believe we will get an objective environmental review of major urban projects, as long as the state designs the project, hires (and pays) the consultants to evaluate the environmental impacts, and then self-certifies. Especially, when it proposes to induce heavy truck traffic through urban core in cities like El Paso, Austin, and Houston, where so many highways already express a legacy of environmental racism."

Name: Donald Davis

Organization: individual

City and State: Magnolia, TX

Brief: Excessive community noise. The Noise Control Act of 1972 badly needs Federal funding and action, because states are failing to do their part. Illegally modified exhaust systems are a major problem--motorcycles especially, but also cars and trucks.

Want WHEJAC to do: Reestablish the Office of Noise Abatement and Control at EPA

Full Name (First and Last): Mara Yarbrough

Name of Organization or Community: Self-employed environmental justice legal professional

City and State: Ohkay Owingeh

Brief description about the concern: We are nearly out of time. But, there is a chance the clock can be slowed if gas and oil development in the Permian Basin is ended, once and for all. Gas and oil extraction in the Permian Basin disproportionately harms overburdened communities and significantly contributes to climate catastrophe. The Permian Basin, spanning over 6,000 square miles in Texas and New Mexico, has been referred to as the world's singlemost prolific oilfield. Gas and oil development in the region is a double-edged sword because, while it significantly and adversely impacts overburdened frontline communities, those very same communities have come to rely on economic benefits of the industry, through jobs and support of local businesses. Additionally, the State of New Mexico is dependent on revenue from oil and gas operations to help fund the state's public education programs. Gas and oil operations in the Permian Basin emit a range of toxic chemicals that poison local communities, including

methane (a the potent greenhouse gas that accelerates global warming 80 times faster than carbon dioxide) and smog-creating chemicals, all of which cause a slew of health problems like asthma, cancer, neurological conditions, and many others. A just and equitable transition away from oil and gas, one that completely phases out oil and gas development while providing viable economic alternatives to frontline communities as well as alternative sources of revenue for the State of New Mexico is imperative. If the Permian Basin continues to be exploited for gas and oil, overburdened frontline communities will continue to suffer, and the climate crisis will accelerate. The time is now and ending gas and oil development in the enormous Permian Basin oilfield may be our nation's last and greatest chance to put the brakes on climate change before it's too late.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

-- Support ending subsidies for the gas and oil industry; -- Recommend providing direct funding to New Mexico to support a just and equitable phase-out of gas and oil that economically supports workers and communities and replaces lost revenue for public education -- Permanently discontinue leasing for gas and oil activities on federal land in New Mexico

The ongoing and latest science on fluoride as a developmental neurotoxicant has created an urgency that rightfully demands prompt attention. In light of the history and latest science of CWF, a strong argument can be made that the CWF controversy by its very nature has reached critical mass, as did the science of lead toxicity when it was finally banned from paint and gasoline after decades with a growing body of evidence of its unreasonable risks to public health. But the Biden-Harris Administration cannot wait any longer to take responsible actions to do the same with fluoride, certainly not decades, when it has now been revealed that exposure to fluoride as an environmental toxicant is threatening the intelligence of future generations at the population level. Indeed, the Precautionary Principle can and should now be invoked. The general public has ever-increasing electronic access to political truths and to the science that supports the growing body of evidence that CWF has been and continues to be a failed experiment of treating a medical condition by mass medication. The American Dental Association and closely allied pro-fluoridation corporate interests can and must shift the CWF paradigm away from promoting mass medication, to developing a system of instituting programs that provide oral health education and friendly access to professional dental care to individuals within groups who need it most. Contrary to what was originally proposed as an extrapolated benefit of CWF, the practice has NOT increased the equitable distribution of effective tooth decay prevention to disadvantaged populations. The childhood tooth decay epidemic is far more prevalent among inner city and other minority and underserved communities than in the more affluent populations that can afford healthier diet and nutrition and regular dental check-ups. The disparity which still remains is obvious among the revealing smiles encountered in real life. (See attached file: "Dental Fluorosis . . .pdf") Of particular note, the CDC's Dr. Karen Hacker has shown interest by meeting with some of the research scientists

who have come to these conclusions with studies funded by grants from the National Institutes of Health. It is therefore timely and appropriate that the CDC and the EPA coordinate efforts to fully support and design a functional paradigm shift away from the CWF program and its promotion, to alternative and more effective programs of preventing tooth decay. The White House Environmental Justice IAC's purpose, as I understand it, is precisely to coordinate such collaboration to achieve needed results. That paradigm shift will answer the call from the vocal WHEJAC members at this week's WHEJAC public meetings to produce results, not just more meetings to accumulate more public comment which so far have produced identification of problems needing remedial results, but evidently parked on the back shelves, with no results and no suggestion of further activity. It seems reasonable the fluoridation issue be assigned to a WHEJAC workgroup, which would only need to work long enough to agree it's time to invoke the Precautionary Principle, and that it is now or never that we stop adding a toxic hazardous waste to public drinking water as a means of legally disposing of that hazardous waste.

Sincerely, *John*

Mueller, P.E. Retired

**West -5 Colorado, Wyoming, Montana, Idaho, Washington, Oregon, Utah,
Nevada, California, Alaska, Hawaii**

Name: DON HULING

Organization: Soos Creek Area Response

City and State: Auburn, WA

Brief description about the concern: What is the number ONE complaint filed with police?
NOISE!

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do? What is the number ONE complaint filed with police? NOISE! So it is imperative that Congress step up to help solve this problem with a little leadership from the White House. NOISE affects physical and mental health of hundreds of millions of us as shown in hundreds if not thousands of studies over many decades and yet Congress has failed to re-establish the Noise Act of 1972 funding. It is WAY past time people. Do your job and get it done.

Name: Tim Holbrook

Organization: individual

City and State: Boulder, Colorado

Brief: Underserved community suffers disproportionately during extreme weather including floods and storms.

Want WHEJAC to do: Support a US government backed insurance program focused on underserved communities (perhaps an extension of National Flood Insurance Program).

Policies would be offered through local insurance agents to offer free or income based insurance policies that cover expenses of 1. OWNERS - preparing for floods (dry or wet flood proofing) and 2. RENTERS - partial reimbursement for expenses of damages to belongings, temporary housing, and flood cleanup.

Name: Steven Morgan

Organization: Individual

City and State: Springfield Oregon

Brief: I live close to an industrial facility. The noise pollution is a problem, because of OSHA required reversing beepers on forklifts and log loaders that can be heard 1/4 mile away. Sometimes inside house at night. Could someone fix this problem, because they do not need to be so loud. Plus, they have newer sounding backup alarms they are legal and quieter. Other sources of noise pollution too. Noise pollution issue needs to be addressed urgently.

Want WHEJAC to do: Alert all OSHA regulated businesses that they can use quieter reversing alarms on their equipment. Making poor neighborhoods better.

Name: Katie Pappas

Organization: Stop the Polluting Port Coalition

City and State: Salt Lake City, UT

Brief: "Thank you for giving me the opportunity to comment. I am part of the Stop the Polluting Port

Coalition, a group of individuals and organizations concerned with the harmful impacts of the Utah Inland Port. We believe the Salt Lake Valley will be unlivable if this project is brought to fruition. In the mid 19th century, my pioneer ancestors settled in what is now considered the west side of Salt Lake City. They went on to farm a parcel of land near the Jordan River. I want to acknowledge, this new Mormon settlement, was one of the first acts of injustice perpetrated in this area, as the land was within the territory of the Northwestern Shoshone. It had also been inhabited by the Paiute, Goshute and Ute tribes. As the city grew, parts of the west side were transformed into industrial and manufacturing areas. Less desirable projects were located there. At one point, the number of railroad tracks per capita was the highest in the United States. Residential development took off in the 1940's following WW11 and small affordable homes were built. Today, Salt Lake's west side, including Rose Park, Poplar Grove, Glendale and Westpointe, house the most ethnically diverse population in the state. Unfortunately, the area is also home to landfills, two refineries, most major freeways and rail lines in the valley, and even industrial tailings. West side residents have endured the negative consequences of all of these. They've had more than their share of harmful developments. In 2018, the Utah legislature created the Utah Inland Port, a massive new industrial and warehouse development project to the north and west of these already impacted neighborhoods. The 24.4 square mile port would increase the movement of cargo in and out of Utah, drastically increasing truck and rail traffic, all at taxpayer expense. At least 1/4 of the area is considered environmentally

sensitive, with bird and wildlife habitat, and wetlands of the Great Salt Lake. The project will result in increased air, light and noise pollution, environmental degradation, and even more spraying of pesticides in the area to control mosquito populations. The Salt Lake Mosquito Abatement District has already asked for a 75% increase in their property tax revenue to increase pesticide spraying in the area. Salt Lake City already has some of the worst air pollution on the planet, leading to shortened life expectancy and a long list of documented health impacts. The area is frequently out of attainment with current EPA standards. We have higher than average rates of asthma and autism spectrum disorder. The anticipated increased traffic has already led to road expansion plans in local neighborhoods. Requests for information on projected impacts of this project are met with silence. The majority of city residents are opposed to it, and yet it moves forward, on our dime, without accountability to the public."

Want WHEJAC to do: I urge the White House Environmental Justice Advisory Council to support our diverse neighborhoods and protect them from future harm. I'm encouraged that environmental justice is being given the attention it deserves.

Name: Brent Newell

Organization: Public Justice

City and State: Oakland, CA

Brief: The IPCC has recently declared a climate code red and called for near-term, strong, rapid, and sustained methane reductions in order to stabilize our climate. The Administration has responded to that methane call to action by releasing the U.S. Methane Emissions Reduction Action Plan. But the Plan only contemplates voluntary, incentive-driven methane reductions in the agricultural sector. The Administration is failing to center environmental justice in its climate policy when rural communities endure racially disparate impacts from industrial animal agriculture "factory farms" and the Plan exacerbates that injustice.

Want WHEJAC to do: "The Center for Food Safety, Friends of the Earth, Land Stewardship Project, Public Justice, and the Socially Responsible Agriculture Project respectfully ask the WHEJAC to recommend that the Administration use its existing legal authority under the Clean Air Act to require methane reductions from industrial dairy and hog operations in a manner that advances environmental justice. A letter fully explaining the issue and the request will be emailed. Thank you for the opportunity to comment."

Name: Renee Cail

Organization: Citizens for a Healthy and Safe Environment

City and State: Lithonia

Brief: "My concern is that our governmental systems have not adequately addressed the problems that our underserved populations are experiencing as a result of the pollution emitted by businesses that have little or no regard for underserved and overburdened people.

Our people in this country are suffering needlessly."

Want WHEJAC to do: "I believe that our nation must exhibit solutions for economic justice by eliminating the belief system that one race is superior over another. Quite frankly, pollution affects all of us rich or poor, black or white. WHEJAC must create a dialogue with people adversely impacted by polluting companies who have no regard for the poor, urban dwellers, young nor the old. Create coalitions affected by dirty air, contaminated soil and poisoned water that can report to a responsive body of people who will assist with making changes to enhance the quality of life for everyone. (Particularly for those with no resources)."

Name: Jackson Green

Organization: Stop The Polluting Port

City and State: Salt Lake City, Utah

Brief: What is the EPA doing about the Utah Inland Port? Because during certain times of the year the addition of pollution from the semis and switcher trains will make the air pollution unsafe for the citizens of this valley to breathe.

Want WHEJAC to do: Put a hold on the Utah inland port until a drastically less polluting plan of development can be achieved.

Name: Darius Sivin

Organization: UAW

City and State: Washington

Brief: Risk Management Plan Rule (Chemical Disaster Rule) is not strong enough. Low income communities and communities of color suffer as a result.

Want WHEJAC to do: "The EPA Risk Management Plan Rule should be strengthened to :

- Address disproportionate, cumulative impacts for communities with multiple RMP facilities.
- Restore and implement essential requirements for safer chemicals, technologies and practices, worker training, third-party audits, root cause analysis, deregistration analysis, and emergency exercises. - Prevent chemical disasters by ensuring hazard reduction, not merely improved response to preventable disasters. This should be done by requiring the identification and use of available inherently safer methods to eliminate or reduce catastrophic hazards.
- Require worker and union participation in incident prevention, investigation, and response. It should require worker training in order to enhance safety and facilitate meaningful participation."

Full Name (First and Last): Mary Urban

Name of Organization or Community: Myself

City and State: Centennial, CO

Brief description about the concern: We are under almost daily assault of general aviation and commercial jet noise. We have an airport that has grown way beyond what it should have, and now we have Metroplex from DIA flying jets, sometimes as low as 13,000 feet in a steady stream at times. It used to be really quiet. The prop planes and other planes coming out of local airports all up and down the front range of Denver have increased DRAMATICALLY in the last five years. Quality of life has really decreased. The airports and the FAA WILL DO NOTHING to mitigate noise. The pilots are allowed to fly low over residential areas 24/7. No amount of complaints helps the situation. Sometimes we even get harassed by pilots if we publicly complain. In the summer, we cannot have windows open at night, for fear of our sleep being disrupted. And to add to it, the propeller planes STILL use LEADED fuel. Even on bad air quality days, they still just circle and circle endlessly. Our governor will not respond to emails. Someone must intervene. We have fires right now in the mountains, yet the government in this state and the FAA are totally unconcerned about the climate, and about quality of life.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Please remove control over airports and pilots from the FAA. Stop the subsidizing of the gas and oil industry. Give the EPA control of the airports. Subsidize electric planes and trains. Put a tight limit on short range flights. Build High Speed Rail. Ban Leaded Fuel. Make the noise limits much more strict. The FAA keeps saying over and over it does studies. Well, NOTHING ever comes of this. They just use our money and say they will do more studies. They know that noise is a huge problem, but all they ever do is say, well let's do another study. They lied about Metroplex. It was supposed to keep planes up higher, but now we have these huge jets flying even lower. This is a huge, huge problem for the people who had previously moved into areas that they thought were quiet (they were at one point) and now, they have low flying planes without any say it it whatsoever.

Full Name (First and Last): FELIPE AGUIRRE

Name of Organization or Community: COMITE PRO UNO

City and State: MAYWOOD CA

Brief description about the concern: AS A MEMBER OF THE EXIDE LEAD CLEAN UP ADVISORY COMMITTEE IN CALIFORNIA I WOULD REQUEST THAT THE WHEJAC ADVISE THE EPA OR THE WHITE HOUSE COUNCIL TO REVIEW THE CURRENT CLEANUP OF THE RESIDENTIAL PROPERTIES IN EAST SOUTHEAST LOS ANGELES COUNTY OIF THE STATE OF CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCE CONTROL IS DOING A GOOD JOB ON THE CLEANUP BEING THST DTSC DOES NOT LISTEN TO THE COMMUNITY AND ITS CONCERNS PARTICULARLY THE METHOD FOR THE CLEANUP WHICH SKIPS HOUSES AND THE LACK OF TESTING OR CLEANING INSIDE THE RESIDENCES PARTICULARLY THE ATTICS WHERE THE GREATEST AMOUNT OF LEAD ACCUMALATES

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

TO REVIEW THE CLEANUP PLAN CREATED BY DTSC AND IF NECESSARY TO ASSIST IN OR TAKE OVER THE PROJECT BY DECLARING EXIDE AND ITS SURROUNDING A SUPERFUND SITE TO PERFORM A CLEANUP AND REVIEW THE ACTUAL PROCESS OF THE STATE CLEANUP AND PARTICIPATE IN EVALUATING THE PROGRESS OF THE WORK

Full Name (First and Last): Liat Meitzenheimer

Name of Organization or Community: Fresh Air Vallejo

City and State: Vallejo, CA

Brief description about the concern: The city of Vallejo has done a poor job on addressing environmental justice and used prior ARPA funding for things like reopening a fire station that had been closed long before the epidemic and hiring more police. We would like something to rely on to help guide the city into doing the appropriate work to protect our at risk communities. We are across the straight from the refineries and also burden by wildfire smoke. There is also no action taken for over ten years to address sea level rise. We need funding and assistance to hold the city accountable.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: While the much needed focus on EJ is appreciated, my question is how will the Biden Administration ensure that the funding will be distributed equitably and that the agencies/cities will stay within the true spirit of addressing EJ issues.

Full Name (First and Last): Jose Bravo

Name of Organization or Community: Just Transition Alliance

City and State: San Diego, CA

Brief description about the concern: I want share this during public participation today. My WiFi connection is really bad. Please make sure the following comments are entered in to the record. I will be listening in. I just came back from the UNFCCC COP26 in Glasgow. President Biden made several commitments, at the same time he opened 80 million acres to fossil fuel exploration in the gulf coast. This we believe is contradictory to where we want to go. Please move away from Smart Agriculture. If you do not start phasing out fossil fuels in the next 11 years we will not reach any goals. We also believe that Carbon Capture is a false solution and well as Hydrogen. Feel free to ask Carletta Tilousi about how clean nuclear energy is as do a site visit to the Navajo Nation so you can personally see the legacy of Nuclear energy. Please read our Hoodwinked in the Hothouse report which outlines several other false solutions. Mass transit not just 500 thousand EV stations. Most of our community members will (do) not have

access to electric vehicles. So non polluting mass transit infrastructure is a must. During WWII we re-tooled Detroit for the war effort. We need to re-tool Detroit once again, but this time for the war against climate impacts. Move away from Risk Assessment, move towards Hazard Assessment. Risk assessment does little to nothing for EJ communities. NEPA needs to include secure environment and health model of Government accountability. The EPA and any other government agency must not be able run away from its duty of enforcement because of natural disasters or pandemics. This Dereliction of Duty will not and should not be tolerated. As far as a Just Transition on climate, resources under Build Back Better, Just 40 and community infrastructure under this administration I am very concerned about the direction.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Acknowledge the receipt of my comments, I would also like to be part of further discussions on the issues I outlined. I consider myself a subject matter expert.

Full Name (First and Last): Donna

Name of Organization or Community: Urban

City and State: Centennial, CO

Brief description about the concern: General aviation is out of control and is causing noise and air pollution for communities. Quality of life and health are all being compromised because of the excessive noise from flight schools and private pilots who fly any time of day or night. Prop planes use leaded fuel, and communities are suffering the effects of lead poisoning.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: The EPA needs to take control over industries that cause noise pollution. I live near a general aviation airport and am experiencing a decline in health due to the low frequency noise that goes on for hours at a time, sometimes from multiple planes. I am awakened in the middle of the night by low flying prop planes. Studies have shown that interrupted sleep and interruptions throughout the day from noise (including aviation noise) is detrimental to one's health. Control over a general aviation airport should fall within the scope of those who live near the airport, and the pilots and airport authorities need to be held accountable for the noise and air pollution they are causing. The general aviation industry needs to stop using leaded fuel. The FAA should not be left to deal with the abuse that's occurring for people on the ground. Also, ever since Metroplex was implemented, we now have noise from jets that fly over, one after another. Aviation has destroyed quality of life and is a risk to the health of communities.

Full Name (First and Last): Francesca Reitano

Name of Organization or Community: Concerned Sacramento neighbor in Elmhurst

Neighborhood City and State: Sacramento, California

Brief description about the concern: Tree canopy EJ issues, effect of federal/state/local density proposals in residential neighborhoods on tree canopy in all neighborhoods, and lack of affordable housing for our lower-income residents.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Take my e-mailed comments into serious consideration and incorporate them into your solutions and policies. Allowing developers to run wild while the government does not provide affordable housing is a neoliberal housing solution that will not solve our affordable housing issues, and will destroy our tree canopy in a city dealing with heat and climate change issues.

Full Name (First and Last): Jackson Green

Name of Organization or Community: Stop the Polluting Port Coalition

City and State: Salt Lake City, Utah

Brief description about the concern: The Utah Inland Port Authority is grossly negligent as far as listening to the citizens of Salt Lake City and Utah goes. They are taking our tax dollars, planning to destroy our environment (bird nesting wetlands) and pollute our air, and not taking into account the benefits of electric transportation mandates.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Regulate the UIPA (Utah Inland Port Authority) and let them know that they are being watched on a national scale. Put environmental and air pollution limitations in place because our own state is failing us on this front.

Full Name (First and Last): Ryan Shields

Name of Organization or Community: Oakland, CA

City and State: Oakland, CA

Brief description about the concern: Noise pollution is getting significantly worse throughout the country. My city is no exception. The noise emitted by illegally modified vehicle exhaust alone is out of control. There is no enforcement. This noise is not just annoying, but quite literally harmful to human health. It negatively affects every single person within earshot; disrupting education, raising blood pressure, damaging hearing, aggravating cognitive and developmental disorders, and generally reducing quality of life - for no good reason.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

Restore funding to the EPA's Office of Noise Abatement and Control and support enforcement; especially on modified vehicle exhausts. Bring attention to the dangers of noise pollution. Provide funding and incentives to state and local government to reduce noise pollution.

Full Name (First and Last): Aly Mcdire
Name of Organization or Community: N/A
City and State: Salem, OR

Brief description about the concern: Excess loud (65dBa+) noise for short and long periods of time has been proven to be harmful to people and the environment. Not just by 1 type of machinery or 1 type of people but of many if not all. It's a colossal Failure by the State and it's various Police agencies to NOT penalize and/or prosecute for drag racing and modified vehicle exhaust systems. These include "fart can mufflers", straight pipes or other modified systems that vastly increases vehicle noise, and unregulated electric tools like saws, chainsaws & sanding machines. Many I can hear not just 3 blocks away but MILES away like the excessive blowing trains causing many to go deaf (I could hear AND FEEL the earthquake like shaking of it for over an hour 1 train blowing every 40 secs from at least 5 miles away tracks. There is no police enforcement of these crimes, so the offenders know they can get away with them in almost every city/county. These vehicles/objects can be 120+ dBa on acceleration, which if you're a pedestrian or bicyclist, is hurtful and/or damaging to the human ear and the distress on wildlife like endangered species.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

There needs to be a real bill, with specific enforcement detail, introduced in Congress and signed by the President, to step up prosecution of this deliberate, damaging, and disgusting act by those that hurt the majority, making some feel like they're in house arrest if not severely harassed. Even making some wasteful &/or outdated machines illegal TO USE (not just buy, possibly with a reward or discount of those that give there's to a scrap yard or electronics recycling business or somewhere like those). Please make/do/support whatever action is necessary to make this happen. Thank you.

Full Name (First and Last): Dorothy Owen
Name of Organization or Community: Westpointe Community Council
City and State: Salt Lake City, Utah

Brief description about the concern: The Point of the Mountain Authority (PMA) is in the process of planning "The Point" a 600-acre project at the Draper site of the current Utah State Prison. This effort would not be possible if the State had not relocated the State Prison to the Westpointe community in the northwest corner of Salt Lake City. The expensive infrastructure at this location ignited the momentum for the creation of the Utah Inland Port Authority (UIPA)-a 22,000-acre project in the same area which covers 19% of Salt Lake City's municipal jurisdiction. In fact, the initial bill creating the UIPA was modeled after the PMA with the same state legislator sponsoring both pieces of legislation. The final UIPA bill was rushed through during the final hours of the legislative session with critical lastminute changes. One of the most significant changes was eliminating the requirement directing UIPA to "promote a high

quality of life for residents of the area, region and the state.” It is a profound change that underlines the difference in values, intent, and process between the two projects. For all the positive efforts "The Point" is striving to achieve, similar efforts are being thwarted and ignored 20 miles away. That is not progress. Instead, we are protecting some residents at the expensive of harming others. The Point of the Mountain Authority involved the community and its elected officials in creating operating philosophies, detailed plans, and sustainable metrics to guide the project’s implementation.

The community is informed, engaged, and supportive. The development aims to be “known globally and loved locally.” Contrast that environment with the continuous vocal opposition and repeated public demonstrations opposing the UIPA. No one in the Salt Lake Valley is immune to the pollution destroying the quality of our air and water. Nevertheless, the problem is being addressed differently and unequally in these two communities. Even before this latest Inland Port invasion, the westside communities of Salt Lake City were polluted by oil refineries, four interstates, an international airport, and toxic tailings.

The Point of the Mountain Authority (PMA) has six guiding principles for its development

- “Promote the public interest” --advance public welfare ahead of individual interests.
- “Set the standard” –build a thoughtful, sustainable, and creative development.
- “Think regionally” –develop regional opportunities while addressing regional challenges.
- “Take the long view” —invest resources for sustained, not quick, returns.
- “Be open and transparent” --respect and seek input from all stakeholders, recognizing that our actions impact others.
- “Act with integrity” –base decisions on sound data and the law.

In comparing the actions of the PMA and UIPA against these standards, the stark differences and inequities become clear. We are faced with a clear, well-documented case of textbook environmental injustice. Preventing an environmental disaster is much less expensive than cleaning it up years later. Your intervention at this time will make a profound difference. Thank you for your willingness to listen and to investigate this matter further.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?:

To reject any requests for federal funding of UIPA projects.

To use federal regulatory authority to require a Human Health Assessment of the UIPA project

To support investigations into the comparative inequality of the two adjacent projects. This could include academic papers as well as legal briefs.

Full Name (First and Last): Susan Goldsborough

Name of Organization or Community: Families for Clean Air and Doctors and Scientists Against Wood

Smoke Pollution

City and State: San Rafael, CA

Brief description about the concern: Residential wood smoke is both a public health hazard

and a significant climate change forcer. EPA certified wood stoves and pellet stoves emit unhealthy levels of PM 2.5 and air toxics such as benzene, formaldehyde, dioxins, and PAHs. The combustion of wood also releases methane, carbon dioxide, and nitrogen oxides - all greenhouse gasses. Using wood for fuel increases 3% annually.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: Every year residential wood burning increases by at least 3%. Recreational burning such as the use of fire pits and home meat smokers and pizza ovens is also increasing. The EPA's own statements clearly delineate the health hazards and climate change forcing aspects of such use of wood. But, the EPA has also promoted wood burning as a heat source for over 30 years without ever conducting an audit to see if the stoves they certified actually performed in the field to the standard the EPA promulgated. The average person believed that the EPA certification meant that burning wood in a certified device meant that no harm would come to the environment or public health as a result. Those conclusions are tragically false. No clean burning pellet or wood stove exists. Even when there is some reduction in particulates released, there is no reduction in air toxics or greenhouse gasses. We recommend the EPA do the following: 1. Stop promoting wood and pellet stoves. The promotion of using wood for fuel contradicts everything the EPA stands for. The combustion of wood damages public health, causes deforestation, and accelerates climate change. 2. Classify woodsmoke as a greenhouse gas because it contains three greenhouse gasses. That would help shift public behavior away from wood burning.

Full Name (First and Last): Richard Page, M.P.A.
Name of Organization or Community: Breakthrough Communities
City and State: Oakland, CA

Brief description about the concern: Together, America is going to rebuild. Who will be included? BIPOC educational disparities in STEM and STEAM course enrollment, and in trades education must be remedied for all to be at the planning table and serving in the jobs needed for the rebuild. During Covid19 lockdown, many BIPOC students fell further behind, unable to utilize Zoom classes. Now, students returning to the classroom are often disruptive and need special help, including 1+1 mentoring.

What do you want the WHEJAC to advise the White House Council on Environmental Quality to do?: After school mentoring programs are often limited to those able to pay large fees, and poorly-paid mentors are in short supply. Establish equitable (fee paid for qualifying students) 1+1 mentoring programs paying a living wage AND TUITION to undergraduates who are majoring in STEM and STEAM courses (arts, including mindfulness stress reduction meditation, hands-on learning projects, outdoor classrooms and more). As we discovered when LAX airport expanded and the nation's first Community Benefit Agreement was created, hiring BIPOC local tradespeople in equitable numbers to perform the work required education prior to being able

to qualify for training in the trades.

Full Name (First and Last): Carl C Anthony

Name of Organization or Community: Breakthrough Communities Project at Earth House

Center City and State: Oakland, California

Brief description about the concern: Job creation and EJ impacts within the educational sector (formal and informal)

What do you want the WHEJAC to advise the White House Council on Environmental Quality

to do?: A significant number of people at the WHEJAC meeting referenced education. We propose that work force development and the educational sector (formal and informal) be subject of a working group. this work group should include a range of educational categories including locational, professional, environmental education, and STEM/STEAM, and Pk-12. HBCUs should also be included. This should embrace all the people at the center of environmental justice, their children and grandchildren.

The National Environmental Protection Act (NEPA) provides the legal and policy framework for environmental protections at the national level. NEPA is one Act intended to provide consistency in environmental reviews across the Nation, however there are significant differences in approaches to NEPA by Department and Agency. Federal departments and agencies, as well as State, Local and Tribal Governments who receive federal funding, are given much latitude in how they implement the provisions of NEPA. The NEPA model must be updated, and change must begin with consistency and uniformity in the way NEPA is administered and enforced nationally. To address the lack of consistency, it is important that there be an entity within the federal government that is tasked to ensure that first NEPA is understood and implemented with a standard of best practices by all entities tasked with carrying out its requirements. These same departments and agencies must provide one set of guidelines with a heightened standard of best practices (e.g. see a 2016 document called “Promising Practices for EJ Methodologies in NEPA review” published by the Interagency Working Group on NEPA, “IWG-NEPA”) for administering the provisions of NEPA and carrying out environmental impact studies. Such oversight must apply not only to all federal departments and agencies, but also to State, Local and Tribal governments that implement NEPA. This oversight agency would not act as a final signatory check-off, but rather ensure that processes and deliverables are consistently implemented across all federal departments and agencies, as well as state, local and tribal governments. The oversight agency would, in the case of a refusal to provide consistent and uniform environmental work, be empowered to stop the final plan from being approved. Most appropriately, this oversight agency would be housed in the Environmental Protection Agency in a new division contained within the Administrator’s Office. Not regulatory in nature, the oversight staff would include subject matter specialists, mediators, educators, and negotiators able to not only train diverse staffs in NEPA consistency, but to lead in the settlement of differences. Background: NEPA and its associated rules and

regulations provide for how federal agencies evaluate the impact of federal actions on the environment. Federal departments and agencies are given much latitude in how they deal with the provisions of NEPA. By extension, NEPA also provides guidance to state, local and tribal governments when they use federal funds. As federal agencies delegate authority to state, local and tribal governments, they leave much latitude to those entities for how they implement the provisions of NEPA. As a result, we find significant inconsistencies in how NEPA is applied, which leads to a significant lessening in protections not only to the physical environment and other living creatures, but to human beings. Inconsistencies in the application of NEPA has manifested itself in several ways. Our inability to rationally deal with climate change as a Country is a most glaring example. But our failure to protect humans, especially underrepresented and disenfranchised people who have experienced disparate and cumulative environmental impacts has led directly to health disparities and most notably economic disparities that are contrary to the very argument used to soften the impact of NEPA. Inconsistencies in the application of NEPA at the federal level have not gone unnoticed. An Interagency Working Group on NEPA (IWG-NEPA) has worked to identify best practices in the application of NEPA. See their March 2016 memo titled “Promising Practices for EJ Methodologies in NEPA Review”. However, IWG-NEPA has no authority to identify how individual agencies use or fail to follow best practices. Furthermore, IWG-NEPA has no oversight or control over State, Local and Tribal governments when it comes to best practices. As Congress approves significant infrastructure bills, it is important to recognize that the expenditure of trillions of dollars of federal funds is in itself an undertaking that will result in significant social and environmental impacts. Because there is no consistency in how NEPA is currently or will be applied to projects using these trillions of dollars, there can be little expectation that negative impacts will be minimized going forward. Further, there can be little expectation that social and environmental injustices will be dealt with or prevented in any meaningful way. Currently NEPA does not actually require that an agency change any infrastructure plans based on findings of adverse cumulative impacts or disparate impacts. It simply requires that an agency consider EJ issues; NEPA does not require that an agency do anything to improve conditions for the communities impacted. [The rest was redacted, but document is attached to this comment.]

Docket Comments

Re: White House Environmental Justice Advisory Council November 17 and 18, 2021 Virtual Public

Meeting, [Docket ID No. EPA-HQ-AO-2021-0683] Dear Members of the White House Environmental Justice Advisory Council (WHEJAC), Thank you for the opportunity to comment on the WHEJAC virtual public meeting which took place on November 17th and 18th. The West Virginia Rivers Coalition (WV Rivers) is the only statewide organization focused on promoting the overall health of West Virginia’s waters and their downstream benefits. At the forefront of policy discussions in West Virginia, we are motivated by the preservation and improvement of

water quality through programs focused on water, public lands, and climate change with environmental justice at the forefront of our values. Our analysis, input, and mobilization of citizens and allied organizations are critical to providing balance and credibility in the policy debate and to ensuring that the facts are accessible for constituents to hold decision-makers accountable to policies guided by science and the public interest. We provide the following comments to WHEJAC for the discussion and deliberation of draft recommendations to the Chair of the Council on Environmental Quality and the White House Interagency Council on Environmental Justice from the Justice40 Work Group, Climate and Economic Justice Screening Tool Work Group, and the Scorecard Work Group. Whereas the WHEJAC provides advice and recommendations about “issues of environmental justice and pollution reduction, energy, climate change mitigation and resiliency, environmental health, and racial inequality,” WV Rivers would like to raise concerns regarding regulatory, community, and economic issues related to environmental justice in West Virginia. The issues we wish to highlight in our state are environmental sacrifice zones, inequitable energy resources, unsafe drinking water, climate disasters, and natural gas pipelines as symptoms of systemic environmental injustices that can be mitigated through the adoption of sciencebased and thoughtful policies. See the attachment. Sincerely, Angie Rosser Executive Director West Virginia Rivers Coalition West Virginia Rivers is a 501(c)(3) non-profit organization and a state affiliate of the National Wildlife Federation. West Virginia Rivers Coalition

My comment is in response to another comment by a Mr. Derrick Sebree Jr. posted on Nov 15, 2021. Mr. Sebree claims that "As an American Descendant of Slavery, my communities are too often at the brunt of ecological disasters amid the vast structural and systemic inequities imposed on my people." While I agree that environmental issues may play a role in the mental health of individuals such as dementia, Mr. Sebree presents the environmental issues as the sole cause of anxiety disorders or depression (associated from the causation of the issue and not from the direct effect of). This is nothing more than an assertion that these individuals are having problems because they have no control over rich white people (while altogether ignoring the many other races that are causing the environmental issues). The structural inequities that Mr. Sebree presents is also nothing more than a geographical division between urban and suburban areas and that Mr. Sebree finds that is itself racist. The only rational way to fix such an issue is to either build onto the community affected or to destroy other communities and Mr. Sebree opts to destroy other communities by virtue of blaming the other communities for the problems that "Flint and Benton Harbor as a standard in terms of pollution" (citing Mr. Sebree's comment). But I did not come here to rant about an erroneous presumption on Mr. Sebree's position. I do agree that mental health monitoring should be recommended, but I strongly caution that the WHEJAC limit their monitoring to mental health issues that have developed due to direct exposure to harmful environmental effects, i.e., effects caused by carbon monoxide poisoning or other pollutants, nuclear radiation, etc. We do not need to waste taxpayer money on individuals who have problems trying to control other individuals through regulations, and we do not need to turn this issue into a political far left

issue. Instead, we need to help those who have actual problems. Anonymous

Summary: The National Environmental Protection Act (NEPA) provides the legal and policy framework for environmental protections at the national level. NEPA is one Act intended to provide consistency in environmental reviews across the Nation, however there are significant differences in approaches to NEPA by Department and Agency. Federal departments and agencies, as well as State, Local and Tribal Governments who receive federal funding, are given much latitude in how they implement the provisions of NEPA. The NEPA model must be updated, and change must begin with consistency and uniformity in the way NEPA is administered and enforced nationally. To address the lack of consistency, it is important that there be an entity within the federal government that is tasked to ensure that first NEPA is understood and implemented with a standard of best practices by all entities tasked with carrying out its requirements. These same departments and agencies must provide one set of guidelines with a heightened standard of best practices (e.g. see a 2016 document called "Promising Practices for EJ Methodologies in NEPA review" published by the Interagency Working Group on NEPA, "IWG-NEPA") for administering the provisions of NEPA and carrying out environmental impact studies. Such oversight must apply not only to all federal departments and agencies, but also to State, Local and Tribal governments that implement NEPA. This oversight agency would not act as a final signatory check-off, but rather ensure that processes and deliverables are consistently implemented across all federal departments and agencies, as well as state, local and tribal governments. The oversight agency would, in the case of a refusal to provide consistent and uniform environmental work, be empowered to stop the final plan from being approved. Most appropriately, this oversight agency would be housed in the Environmental Protection Agency in a new division contained within the Administrator's Office. Not regulatory in nature, the oversight staff would include subject matter specialists, mediators, educators, and negotiators able to not only train diverse staffs in NEPA consistency, but to lead in the settlement of differences. Background: NEPA and its associated rules and regulations provide for how federal agencies evaluate the impact of federal actions on the environment. Federal departments and agencies are given much latitude in how they deal with the provisions of NEPA. By extension, NEPA also provides guidance to state, local and tribal governments when they use federal funds. As federal agencies delegate authority to state, local and tribal governments, they leave much latitude to those entities for how they implement the provisions of NEPA. As a result, we find significant inconsistencies in how NEPA is applied, which leads to a significant lessening in protections not only to the physical environment and other living creatures, but to human beings. Inconsistencies in the application of NEPA has manifested itself in several ways. Our inability to rationally deal with climate change as a Country is a most glaring example. But our failure to protect humans, especially underrepresented and disenfranchised people who have experienced disparate and cumulative environmental impacts has led directly to health disparities and most notably economic disparities that are contrary to the very argument used to soften the impact of NEPA. Inconsistencies in the application of NEPA at the federal level have not gone unnoticed. An

Interagency Working Group on NEPA (IWG-NEPA) has worked to identify best practices in the application of NEPA. See their March 2016 memo titled “Promising Practices for EJ Methodologies in NEPA Review”. However, IWG-NEPA has no authority to identify how individual agencies use or fail to follow best practices. Furthermore, IWG-NEPA has no oversight or control over State, Local and Tribal governments when it comes to best practices. As Congress approves significant infrastructure bills, it is important to recognize that the expenditure of trillions of dollars of federal funds is in itself an undertaking that will result in significant social and environmental impacts. Because there is no consistency in how NEPA is currently or will be applied to projects using these trillions of dollars, there can be little expectation that negative impacts will be minimized going forward. Further, there can be little expectation that social and environmental injustices will be dealt with or prevented in any meaningful way. Currently NEPA does not actually require that an agency change any infrastructure plans based on findings of adverse cumulative impacts or disparate impacts. It simply requires that an agency consider EJ issues; NEPA does not require that an agency do anything to improve conditions for the communities impacted. [The rest was redacted, but document is attached to this comment.] Ayako Nagano

My name is Dr. Derrick Sebree Jr. I am a core faculty member at the Michigan School of Psychology. As a clinical ecopsychologist and practitioner of psychotherapy within Farmington MI, I know the psychological impacts of environmental injustices are profound and far reaching amongst communities exposed to them. As an American Descendant of Slavery, my communities are too often at the brunt of ecological disasters amid the vast structural and systemic inequities imposed on my people. Within my community, I see places like Flint and Benton Harbor as a standard in terms of pollution. Yet, little is done federally to monitor the impacts of these issues on communities like mine, nor are there significant efforts to further investigate the vast structural inequities that create these environmental injustices. I ask the WHEJAC to provide recommendations for mental health monitoring related to environmental injustices in American Descendants of Slavery/Black American communities, along with further investigation into communal water systems within the state of Michigan, as an assessment of structural inequities that can be further exacerbated by climate change related to water scarcity.

Hello. My name is Dave Arndt, a Baltimore Maryland resident and a Climate, Environmental and Social Justice advocate. These three areas have a lot of overlap and I am going to focus on topics at the intersection of these areas. By design all of the injustice is burdened on Black, Brown and low-income areas.

We have two incinerators within 10 miles of my house. One is for municipal wastes and the

other is for medical waste. The Baltimore region ranks among the worst in the U.S. for air pollution. A study by the Chesapeake Bay Foundation in 2017 found air quality in the region was ranked moderate or worse one of every three days, according to the EPA's Air Quality Index. The same study notes poor air quality triggers asthma and can cause other health issues. Little wonder then that children in Baltimore City have asthma at twice the rate of the rest of the country.

The story doesn't stop there, it continues with Plastics, the new coal. Baltimore has a single-stream recycling program. In total only 3% of plastics are recycled in Baltimore. Of the total trash collected, about 49% of it goes to the incinerator. Where it is burned, then breathed in by residents. The toxic ash is taken to the landfill, located in the same Black, Brown and low-income area. At the same time petroleum companies are ramping up production of single use plastics to offset the decline in fuel use. Thus, increasing the waste stream being burned

Incidentally, on the medical waste incinerator, NIH's medical waste used to be burned in Bethesda, but now it is burned in Baltimore - a move from a white area to a Black, Brown, and low-income area.

Baltimore does not have composting, so it's the same story. 40% of compostable materials go to the incinerator. The rest goes to landfill, where a large amount of methane gas is produced.

Now add a few more layers, 36 RMP facilities, a chemical factory which is a large emitter of carcinogens, a working port with piles of coal, plus major interstates cutting through the neighborhoods. All having a cumulative effect.

Another example is that we are trying to stop a crematorium from being built in a residential neighborhood. The EPA has allowed the funeral industry to change the classification of these incinerators to a non-clean air act regulated industry, for marketing reasons. So profits over the health of residents.

I would like to end with a quote from Richard Moore, the National Co-Coordinator of the Environmental Justice Health Alliance: "You can't separate health from environmental justice, because environmental justice is health. And you can't separate issues of climate change and global warming because environmental justice and economic justice is addressing global warming and climate change. And so those intersections are very crucial."

I, Richard Moore, Co-Chair of the White House Environmental Justice Advisory Council, certify that this is the final meeting summary for the public meeting held on November 17-18, 2021, and it accurately reflects the discussions and decisions of the meeting.



Richard Moore

February 16, 2022

Date

I, Peggy Shepard, Co-Chair of the White House Environmental Justice Advisory Council, certify that this is the final meeting summary for the public meeting held on November 17-18, 2021, and it accurately reflects the discussions and decisions of the meeting.



Peggy Shepard

February 16, 2022

Date