

U.S. Environmental Protection Agency National Environmental Justice Advisory Council

Public Meeting Summary

July 25–27, 2023

Location: San Juan, Puerto Rico (In person with a virtual option)

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Preface

The National Environmental Justice Advisory Council (NEJAC) is a federal advisory committee that was established by charter on September 30, 1993, to provide independent advice, consultation, and recommendations to the Administrator of the U.S. Environmental Protection Agency (EPA) on matters related to environmental justice.

As a federal advisory committee, NEJAC is governed by the Federal Advisory Committee Act (FACA) enacted on October 6, 1972. FACA provisions include the following requirements:

- Members must be selected and appointed by EPA.
- Members must attend and participate fully in meetings.
- Meetings must be open to the public, except as specified by the EPA Administrator.
- All meetings must be announced in the Federal Register.
- Public participation must be allowed at all public meetings.
- The public must be provided access to materials distributed during the meeting.
- Meeting minutes must be kept and made available to the public.
- A designated federal officer (DFO) must be present at all meetings.
- The advisory committee must provide independent judgment that is not influenced by special interest groups.

EPA's Office of Environmental Justice and External Civil Rights (OEJECR) maintains summary reports of all NEJAC meetings, which are available on the NEJAC website at <https://www.epa.gov/environmentaljustice/national-environmental-justice-advisory-council-meetings>. All EPA presentation materials for this meeting are available in the public docket. The public docket is accessible at www.regulations.gov/. The public docket number for this meeting is EPA-HQ-OEJECR-2023-0101.

About This Summary

The NEJAC convened in person and on Zoom, July 25–27, 2023. This summary covers NEJAC presentations, discussions, and public comment.

The Federal Register notice for this meeting is at <https://www.federalregister.gov/documents/2023/07/12/2023-14803/national-environmental-justice-advisory-council-notification-of-public-meeting/>.

The meeting agenda is at <https://www.epa.gov/system/files/documents/2023-07/NEJAC%20PUBLIC%20MEETING%20AGENDA%20July%202023%20.pdf>

See appendix A for a list of NEJAC members and their affiliations.

The presentation slides are in appendix B.

DAY 1

Welcome

Paula Flores-Gregg | NEJAC Designated Federal Officer, U.S. EPA

Matthew Tejada | Deputy Assistant Administrator for Environmental Justice, OEJECR, U.S. EPA

Sylvia Orduño | NEJAC Co-Chair

Na'Taki Osborne Jelks | NEJAC Co-Chair

Michael Tilchin | NEJAC Vice Chair

Paula Flores-Gregg, Designated Federal Officer (DFO), opened the meeting and explained the format. She said that participants are in listen-mode only and that public comments are scheduled for July 26, 2023, at 4 pm. She welcomed in-person and virtual meeting attendees in Puerto Rico and explained the process for accessing language interpretation services.

Matthew Tejada thanked those who have been advocating for many years to bring NEJAC to Puerto Rico. He said EPA used to operate on a shoestring budget, and he's happy that EPA can be here now. He said the NEJAC was created to hear from marginalized and disadvantaged communities, and he is looking forward to the work that will take place over the next few days. He said community leaders in Los Piñones welcomed them last night and taught them about their history, music, and dance, and he thanked everyone who made that engagement possible.

Sylvia Orduño agreed that the previous evening was a beautiful experience. She said the NEJAC is excited to hear public comments and other remarks today.

Na'Taki Osborne Jelks said there have been appeals and testimony from the island for many years, and so it was a pleasure for NEJAC to come to the island instead of asking residents to come to NEJAC. She said some things changed after she gave public testimony at a NEJAC meeting in her city years ago, and she hopes that can happen here. She said she hopes that, by being here, EPA can hear many more voices and learn about how people live and context of their lives.

Michael Tilchin thanked those who made the meeting possible and said he is looking forward to the presentations and the public comments.

NEJAC Member Introductions

Cemelli De Aztlan, present	Ayako Nagano, JD, present
April Karen Baptiste, present	Sylvia Orduño, present
Joy Britt, not present	Jeremy F. Orr, JD, present
Rev. Ambrose Carroll, Sr., PhD, present	Na'Taki Osborne Jelks, PhD, present
Scott Clow, present	Sofia Owen, JD, present
Leticia Colon de Mejias, not present	Benjamin J. Pauli, PhD, present
John Doyle, not present	Jonathan Perry, present
Jan Marie Fritz, PhD, C.C.S., present	Millicent Piazza, PhD, present
Yvanka M. Hall, present	Jerome Shabazz, present
Loren Hopkins, PhD, present	Jacqueline Shirley, MPH, present
Andy Kricun, present	Pamela Talley, DNP, present
Jill Lindsey Harrison, PhD, present	Michael Tilchin, present
Richard Mabion, present	Brenda Torres Barreto, present
Nina McCoy, present	Sandra Whitehead, PhD, present

Michael Tilchin confirmed a NEJAC quorum.

Opening Remarks—New Environmental Justice Executive Order and Other Developments

Marianne Engelman-Lado | Acting Principal Deputy Assistant Administrator, OEJECR, U.S. EPA

Marianne Engelman-Lado introduced new OEJECR staff members Principal Deputy Assistant Administrator Theresa Segovia, and Senior Advisor for Environmental Justice and External Civil Rights Kareem David Marshall.

Marianne Engelman-Lado said she would focus her remarks on Executive Order (EO) 14091 ([Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government](#)) and EO 14096 ([Revitalizing Our Nation's Commitment to Environmental Justice for All.](#))

Marianne Engelman-Lado said that at the beginning of President Biden's term, he signed an EO that required federal agencies to develop an equity action plan. EPA's action plan has the following six priorities:

1. Develop cumulative impacts framework and operationalize in EPA's programs and activities
2. Build capacity of underserved communities
3. Develop EPA's internal capacity to engage underserved communities
4. Strengthen EPA's external civil rights compliance program and ensure civil rights compliance is an agency-wide responsibility
5. Integrate participatory (community) science into EPA's research and program implementation
6. Make EPA's procurement and contracting more equitable

Marianne Engelman-Lado said that EO 14091 requires agencies to submit a new Equity Action Plan by September 2023 and every year thereafter. Annually, agencies must assess barriers to equity and update their equity plans, including key strategies. She said EPA's new Equity Action Plan will have a lot of continuity.

Marianne Engelman-Lado briefly discussed EO 12898. She reminded listeners that executive orders are binding on federal agencies, but they cannot be used to bind states, nor can they be enforced in court. She said that President Biden sought to review EO 12898 and make updates where needed. She emphasized that the EO is fundamental to the environmental justice movement, so the intention was to honor it, not cast it aside. Updates include using more modern language (such as avoiding the term "minority"), recognizing the role of civil rights law, accountability, and recognition of the need for an all-of-government approach. She said that, early on in his term, President Biden formed the White House Environmental Justice Interagency Council (IAC) and sought recommendations from the WHEJAC. Both the WHEJAC and the IAC shared recommendations for revisions, and the new EO was signed in the spring.

Marianne Engelman-Lado shared the website Environmental Justice State by State (<https://ejstatebystate.org/>), which tracks state laws and policies.

Marianne Engelman-Lado said EO 14096 starts with a policy statement acknowledging the role that history and inequality play in where we are today. The executive order also includes definitions (including a definition of environmental justice) and clarifies the activities that are subject to the executive order. She said that, importantly, federal agencies are directed by EO 14096 to consider factors such as climate change, historical racism, and cumulative impacts to ensure agency actions don't have a disproportionate impact on any community.

Marianne Engelman-Lado said that EO 14096 also provides a robust definition of meaningful engagement. She added that other provisions reinforce agency obligations under tribal consultation, National Environmental Policy Act (NEPA), ensuring civil rights compliance, collaborating with partners to advance environmental justice, and creating performance metrics and other means of accountability, and more.

Marianne Engelman-Lado said that a new strategic plan for environmental justice must be submitted within 18 months. A new plan must be submitted every four years, and plans must be reviewed every two years. She said the first plan is due in October 2024, but EPA is not waiting until then to implement it.

Marianne Engelman-Lado mentioned a few other provisions, such as that the Office of Science and Technology Policy is establishing an environmental justice subcommittee, which will hold an annual environmental justice summit. The office is also analyzing gaps in data collection and research, particularly on some of the key priorities. She noted that EPA and IAC also have the responsibility to establish an online clearinghouse of environmental justice materials. She said EO 14096 also calls on the Council on Environmental Quality (CEQ) to establish the position of a Chief Environmental Justice Officer within the OEJECR.

Marianne Engelman-Lado said interim guidance on implementing the EO is in the works, but the executive order will be implemented in the meantime. She said that leadership and funding make this a historic moment for environmental justice. She thanked NEJAC members for their service, their recommendations, and their environmental justice work.

Michael Tilchin thanked Marianne Engelman-Lado and welcomed Theresa Segovia and Kareem David Marshall. He opened the floor for questions.

Andy Kricun asked about the executive order's definition of "agency" and asked if state environmental agencies could opt in. Marianne Engelman-Lado said EOs are not applicable to states, but EO 14096 is bound to inform what states do.

Cemelli De Aztlan asked how executive orders will be implemented within the Bipartisan Infrastructure Law and other investments, particularly in communities such as hers, which need a health assessment. Marianne Engelman-Lado said there is no easy answer; EO 12898 requires federal agencies to evaluate their programs for disproportionate impact. She said we need strong methodologies to assess the legacy of racism, and then to work across the government to implement solutions.

Sophia Owen asked how the Supreme Court and the upcoming elections, may be influencing the pace of implementation. Marianne Engelman-Lado said EPA is committed to strengthening its civil rights program. She said that for decades, EPA had only 12 people in its civil rights program. Now, EPA is hiring staff, and they've published their docket online so the Agency's actions are transparent.

Millie Piazza said that, as a state implementer, she is looking to learn more about inclusion of disability access and the rights of people with disabilities. Marianne Engelman-Lado replied that, as a starting point, the environmental justice screening tool is adding a disability layer.

Jacqueline Shirley asked if EPA plans on binding their grantees to environmental justice criteria. Her organization is not a traditional grassroots environmental justice organization but wants to work intentionally. She asked if there is a "how-to guide" for federal grantees.

Marianne Engelman-Lado said that part of the answer is outside the scope of the executive order. She said Thriving Communities Technical Assistance Centers (TCTACs) will be helpful and responsive to her questions. Inside EPA, they must create a clearinghouse on environmental justice. She said that, although the executive order is not binding on grantees, it will impact grantees.

Yvonka Hall said that many states are working to rewrite history. She asked what incentives or sanctions EPA can adopt to force states to recognize issues such as racism, cumulative impacts, and climate change.

Marianne Engelman-Lado recognized the challenging national landscape; at the same time, she said, there is a coalition of the willing; not just one or two states but many states. She said of 50 states, only eight do not have some kind of environmental justice law. She said that EPA and other federal agencies are directed to evaluate in their decision making what the legacy of racism means; it could have a very positive effect. Also, she said, there is civil rights enforcement.

Greenhouse Gas Reduction Fund Implementation Framework Update

Jahi Wise | Senior Advisor to the Administrator and Acting Director for the Greenhouse Gas Reduction Fund Program, U.S. EPA

Jahi Wise said the Inflation Reduction Act (IRA) authorized EPA to implement the \$27 billion Greenhouse Gas Reduction Fund (GGRF), which invests in projects that reduce greenhouse gas and air pollution in communities across the country.

Jahi Wise said EPA has focused on stakeholder engagement and transparency; meaning the agency has reviewed approximately 400 written public comments and more than 12 hours of public listening sessions, as well as reviewed about 150 additional written comments responding to the April 2023 Implementation framework. After working with this input, EPA created three grant competitions:

1. National Clean Investment Fund, which will award a total of \$14 billion to two or three national nonprofit financing entities to create national clean financing institutions;
2. Clean Communities Investment Accelerator, delivering a total of \$6 billion to two to seven nonprofit hubs to provide funding and Technical Assistance (TA) to communities; and
3. Solar For All, funding up to 60 government and nonprofit financing grantees with a total of \$7 billion.

Jahi Wise said GGRF objectives are to reduce greenhouse gas emissions, deliver benefits to American communities, and mobilize financing and private capital to stimulate additional deployment. He said funds must be dispersed by September 2024, so the program must move rapidly. He said competitions were opened in June and applications are due in September for the Solar for All program, and in October for the other two competitions. He said EPA plans to select grantees by March 2024 and award funds in July 2024.

Jahi Wise said that applications require coordination, coalition building, and engagement. He said EPA is hosting webinars on the competition and will publish FAQs on their website, as well.

Sylvia Orduño asked if there would be an opportunity to engage with him another time. She said the NEJAC is concerned about the rapid distribution of funds and whether the GGRF will bring the intended results. Jahi Wise said he would be happy to engage the NEJAC at another point. He emphasized that although the GGRF is large and important, it is only one part of EPA's approach to ensuring equitable climate investment. He said the program will operate alongside climate pollution reduction grants, the TCTAC program, Environmental Justice Block Grants, and numerous other programs funded by the IRA and BIL.

Sylvia Orduño said she would work with chairs to collect and forward questions from the NEJAC. Members were asked to send their questions in writing to Paula Flores-Gregg, who will forward them to Jahi Wise.

Special NEJAC Recognition

Matthew Tejada | Deputy Assistant Administrator for Environmental Justice, Office of Environmental Justice and External Civil Rights, U.S. EPA

Karen L. Martin | Director for Partnerships and Collaboration Division, Office of Environmental Justice and External Civil Rights, U.S. EPA

Matthew Tejada and Karen Martin acknowledged the following NEJAC members whose service terms are coming to a close:

- Na'Taki Osborne Jelks, six years of service
- Sylvia Orduño, seven years of service
- Jeremy Orr, six years of service
- Jerome Shabazz, six years of service
- Michael Tilchin, six years of service
- Sandra Whitehead, six years of service

Paula Flores-Gregg reminded members that Day 2 will start at 9 a.m. She adjourned the meeting.

DAY 2

Welcome and Recap

Paula Flores-Gregg | NEJAC Designated Federal Officer, U.S. EPA

Matthew Tejada | Deputy Assistant Administrator for Environmental Justice, OEJECR, U.S. EPA

Sylvia Orduño | NEJAC Co-Chair

Na’Taki Osborne Jelks | NEJAC Co-Chair

Michael Tilchin | NEJAC Vice Chair

Paula Flores-Gregg welcomed participants to Day 2 and shared reminders about the format of the day’s meeting and opportunities for public participation.

Matthew Tejada welcomed participants and thanked Brenda Torres Barreto and her colleagues for the nature walk on the previous evening. He thanked Lisa Garcia and Region for its support in bringing the NEJAC to San Juan.

Sylvia Orduño said she welcomed the chance to connect the work in the room with the world outside.

Na'Taki Osborne thanked Brenda Torres Barreto and her team. She thanked those who pulled the meeting together and said she’s looking forward to the panel discussions.

Mike Tilchin said the meeting so far has been intense, and the workgroup meetings have been productive. He said he is excited about the presentations and public comments today.

NEJAC Member Introductions

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|---|-------------------------------------|
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| Nina McCoy, present | Sandra Whitehead, PhD, present |

Mike Tilchin confirmed a quorum.

Welcome Remarks & EPA Region 2 Overview of Environmental Justice Issues in the Caribbean

Lisa Garcia | Regional Administrator, EPA Region 2

Carmen Guerrero | Caribbean Environmental Protection Division Director, EPA Region 2

Claudia Gutierrez | Deputy Director, Lab Services and Applied Science Divisions (LSASDs), EPA R2 (Puerto Rico Panel Moderator)

Claude Walker | U.S. Virgin Islands Senior Advisor to the Office of the Regional Administrator, EPA Region 2 (U.S. Virgin Island Moderator)

Lisa Garcia welcomed participants and thanked OEJECR and the team in Region 2. She recalled her time in the Obama Administration and her time consulting with NEJAC when implementing environmental justice priorities and drafting environmental justice legal tools for the first time. She noted that the Biden–Harris Administration signed an environmental justice executive order immediately, revitalizing the nation’s commitment to tackling the climate crisis at home and abroad. She said the Administration also funded the work, giving EPA \$130 billion, much of which will go to disadvantaged communities. She noted that the establishment of OEJECR marks the first new national program on environmental justice, which has more than 200 EPA staff and is securely established, regardless of future administrations.

Lisa Garcia added that Region 2 has an office of Community Engagement and Environmental Justice with dedicated staff. She said she has heard from communities that they really need TA, and the new TCTACs established across the country address that need. She said each center gets \$10 million over five years and noted that Region 2 has two TCTACs. She also said that Community Engaged Research Collaborative for Learning and Excellence (CERCLE) is an EPA initiative to promote participatory science projects. She noted that this was a NEJAC recommendation in 2014. She said this week marks the anniversary of Administrator Regan’s Journey to Justice tour, and community members are here to talk about the progress as well as the challenges in implementing Journey to Justice in Puerto Rico. Each community is different, so EPA needs to be in communities to learn how to get the job done.

Carmen Guerrero welcomed NEJAC members, EPA staff and participants from Puerto Rico, community and civil society representatives, and others. She thanked NEJAC for choosing to hold a meeting in San Juan for the first time in its history.

Carmen Guerrero said environmental and social movements have mobilized persistently in the Caribbean, addressing issues such as mining, pollution, energy, and clean drinking water, among others. She said requests from local communities to have an accessible and available EPA helped the regional office grow from two to three staff in the 1970s to more than 60 in the 1990s.

Carmen Guerrero said that the NEJAC meeting is at an important historical juncture, as Puerto Rico and the Virgin Islands are facing serious fiscal and economic crises that are leading to austerity measures and impacting the capacity of local environmental agencies. This is occurring as both jurisdictions are facing the effects of climate change, including heat waves, rising sea levels, coastal erosion, frequent hurricanes, and more. There are historic levels of federal funding available for

low-income and disadvantaged communities, and she thanked those who will be sharing their knowledges, experiences, and recommendations with the NEJAC and EPA throughout the day.

Claudia Gutierrez asked panelists to respect the time parameters. She said there will be time for questions the end of each presentation.

Historical Perspective of EJ Issues in Puerto Rico

Juan Rosario | AMANESER 2025

Juan Rosario said climate change should be a key focus in Puerto Rico in the next century. Given its unique situation, they will have to work differently than they have in the past. He said people have been working on environmental justice issues in Puerto Rico since before the phrase was coined, and he pointed to the struggles against copper mining in 1967, and the fight against CORCO and oil refineries in 1964 as just two of several examples. He noted that NEJAC was heavily involved in Puerto Rican communities' struggle against waste incinerators and said communities are still suffering from the effects of the pollution originating at those sites.

Juan Rosario said that environmental justice is complex and started with the arrival of Spaniards in 1493, followed by the invasion of the United States. Major deforestation occurred to make room for sugar cane, tobacco, and coffee plantations.

Juan Rosario said that the September 2017 arrival of Hurricane Maria was another key event; it destroyed Puerto Rico's power grid. Despite decades of warnings about what needed to be done to prepare, he said that Mayor of Toa Baja Bernardo Márquez said that "Nobody was prepared for this." Juan Rosario said that Hurricane Maria caused by far the largest loss of customer hours of electricity than any hurricane in U.S. history. He said that following Hurricane Maria, excess mortality increased by nearly 64 percent in the poorest municipalities; these deaths were not caused by the hurricane, but by inequality and injustice. He said that in speaking with people following the devastation, they learned that people experienced great uncertainty. With community input, they identified how energy security can be provided to communities. He said solutions to energy security must be simple enough to be deployed quickly by common people using mainly their own resources. In addition, it must be democratic, under community control, replicable, scalable, supported by science, systemic, and collaborative.

Juan Rosario said he is very concerned about the way federal funds are distributed; he said the current approach will not prepare communities for a future hurricane, and a new system is needed. He said EPA needs to look beyond the well-known organizations and look at the many, many people working in communities. The system needs to serve those who need it the most.

Climate Change Mitigation, Resiliency and Adaptation in Island Jurisdictions

Brenda Torres Barreto | Director, San Juan Bay Estuary Program and NEJAC Member

Brenda Torres said her focus is on climate justice and vulnerable island communities. She said that effective policymaking and efforts to eradicate injustice requires fully understanding the geographical, social, and economic context of impacted communities. She said that, given their unique climate realities, island communities must have an opportunity to provide input into policy

development processes as their own demographic category, alongside low-income communities, elderly, people of color, Indigenous communities, and so on. She emphasized that policies applied to islands require another level of analysis and local island community input.

Brenda Torres said that more than 5 million Americans live on islands, some of which are home to unique ecosystems, including coral reefs, mangrove forests, and unique species. Island communities are particularly vulnerable to climate change because of their small size, relatively low elevation, remoteness, and concentration of infrastructure along the coastline. She said island communities are on the frontlines of the climate crisis, dealing with rising sea levels; extreme weather events; loss of water, electricity, and telecommunications infrastructure; and insufficient resources for food and health care, among other climate-related challenges.

Brenda Torres said that to manage the crises, the Climate Strong Island Network (www.climatestrongislands.org) recommends the following seven areas of focus:

1. Clean Energy
2. Watershed Planning
3. Food Security
4. Disaster Preparedness
5. Sustainable Marine Economy
6. Waste Management
7. Transportation

Brenda Torres shared details of the San Juan Bay Estuary Partnership (Estuario), which has had to shift from being a water quality restoration effort to a resiliency project. She said that, following Hurricane Maria, they turned some community centers into resilience hubs, equipped with solar panels and safe water equipment so the community could survive without electricity. She said another project is Estuario's Citizen Scientist for Socio-ecological Resilience Certification program, which supports the development of a blue-green workforce. In addition, Estuario is developing a multi-jurisdictional Hazard Mitigation Plan for the San Juan metropolitan region. Lastly, she mentioned Estuario's Illicit Discharge Detection and Elimination program, which involves communities in evaluating 97 square miles that they manage and confronting the utility or other responsible party.

She concluded by saying that better governance and legal reforms; improving equity and justice; and more funding, education, and awareness are among the factors that would increase island community resilience.

Puerto Rico Community Panel—Environmental Justice Challenges

Energy and Air Quality

Ruth Santiago | Diálogo Ambiental, Queremos Sol, Communities of Salinas, White House Environmental Justice Advisory Council Member

Ruth Santiago said she wants to see a community-based transformation of Puerto Rico’s electrical system. She said that although the relationship between fossil fuels and climate change is well known, FEMA and the Army Corps of Engineers are promoting \$5 billion in new fossil-fuel infrastructure for Puerto Rico. She said that a group of organizations recently filed opposition to a project that would install 700 megawatts of new fossil fired energy, despite federal government studies that say distributed renewable energy is the best choice for Puerto Rico. She said federal agencies are ignoring NEPA, as NEPA requires agencies to consider reasonable alternatives. Recently, DOE affirmed that Puerto Rico has four to six times the rooftop solar potential needed to meet its energy demand. Ruth Santiago said that, coupled with other funding, about \$20 billion will be invested in rebuilding a centralized fossil-based energy system in Puerto Rico. She said that the scale of proposed solar projects is also a concern. She said utility-scale projects are proposed for prime farmland; however, communities want to see community-based, publicly controlled, properly sited solar projects; in other words, largely rooftop solar projects.

Ruth Santiago said that Puerto Rico is facing multiple crises at once, some of which resulted from tax laws that leave government agencies without the funds needed to provide basic services, such as clean water. Other crises include high unemployment and high poverty, mass migration to the U.S. mainland by working-aged people and professionals, pollution, and high energy rates, all of which disproportionately impact already overburdened communities. She said lessons have not been learned from past hurricanes. FEMA and HUD funding could be put toward decentralized solar, but instead, she said, Puerto Rico is developing two separate and unequal electric systems, in which people with the means can buy or lease rooftop solar systems with battery backups to ride out storms that devastate the fossil-fuel based energy systems relied on by low- and middle-income residents.

Open Dumps, Solid Waste Management, And Circular Generation

Ingrid Vila | CAMBIO PR, Generación Circular Puerto Rico

Ingrid Vila said we need to change our conception of waste from a linear to a circular construct. She said in 1970, Puerto Rico had 77 open dumps, 70 of which burned waste on site. By 1994, Puerto Rico closed 32 landfills (of the 64 remaining at that time) because they could not comply with federal requirements. She said there are currently 27 landfills in Puerto Rico; 10 currently have orders to cease operations. She said that, on average, more than five pounds of waste per person per day is generated in Puerto Rico, in part because of its reliance on imports. She said the impacts on human health and the environment make landfills an environmental justice issue. Ingrid Vila said that waste incineration is an urgent threat that remains at bay only due to public opposition.

Regarding reduction, reuse, and recycling, Ingrid Vila said early goals have not been met, and there is no government plan to promote any of these efforts to reduce pressures on landfills. She said there are no data, no resources, and very little oversight. She identified several mayors who have been accused of or associated with waste collection corruption schemes.

Ingrid Vila tied challenges to a linear economy characterized by the extraction of resources, production, consumption, and waste. As an alternative, she suggested Generación Circular, a multi-sectoral proposal for Puerto Rico’s waste management problems. A circular economy seeks to

decouple resource use from waste and emphasizes reusing, restoring, and recycling. She said the (now defunct) Environmental Quality Board estimated in 2007 that the value of discarded resources that year totaled \$467 million.

She said Generación Circular identified steps to closing the loop, which are to:

- Define a plan;
- Develop data collection processed;
- Educate the public on their role in the circular economy model;
- Adopt a participatory governance structure; and
- Implement strategies that foster innovation and the equitable distribution of wealth created.

Ingrid Vila said the main objectives are to reduce the use of landfills by reducing waste going to landfills, as well as to reduce greenhouse gases, have better data, educate the public, and create thousands of jobs. In the meantime, she said, they have achieved a ban on single-use plastics in restaurants (effective June 2024) and are working on other initiatives, such as an education campaign. She identified several opportunities for Puerto Rico, such as to leverage the relevance to U.S. corporations that operate there.

She said that threats include the \$40 million that EPA awarded to the Department of Natural and Environmental Resources (DNER)—if there are no pathways for community participation in the development of plans. Other threats include government doing business as usual and corruption schemes, renewed interest in waste-to-energy approaches, and the fact that other sectors have been slow to adopt a circular economy approach. She emphasized that waste management is an environmental and generational justice imperative.

Community Drinking Water Systems

Carmen Villanueva | Puerto Rico por el Derecho de una Vivienda Digna (PRODEV)

Miriam Matos | Buenos Aires Community Drinking Water System and Organización de Sistemas de Acueductos Non-PRASA (OSAN)

Miriam Matos said that Puerto Rico is confronting an economic crisis and is one of the worst countries when it comes to inequalities related to climate change. She said Puerto Rico gets 70 inches of rainwater a year as well as having 60 percent water loss. In response to government inaction, communities have assumed the role of creating aqueducts and wells to address their water needs. She said more than 240 communities depend on aqueducts for drinking water. She said about 530 aqueducts have not been registered or identified in their communities. About 68 percent of aqueducts obtain water from underground. She emphasized that people are not receiving the water services they deserve.

Miriam Matos said that she administers the Buenos Aires community aqueduct, which is fed by an underground well that sits 500 feet below the ground and generates 60 gallons of water per minute and provides for 61 families. It runs on 48 solar panels, with two backup batteries that were

donated after Hurricane Maria. It is currently the only solar aqueduct in Puerto Rico, and it is also community directed.

Miriam Matos said many of the systems do not comply with water quality standards, and some of the challenges are the taxes owed to the DNER and the annual reports to the health department, as well as to the Treasury Department. After Maria, they received help from Water Mission and Tesla. She said they suffered after Hurricane Irma, but then Hurricane Maria came and took everything. She said they survived a month and a half without electricity. She said that OSAN was created after Hurricane Maria to move resources as a nonprofit system.

Carmen Villanueva said that people who suffer need to be heard. OSAN and PRODEV had to unite to demand the government listen to them. She said that Puerto Rico consists of islands united by bridges, and they can't leave anyone behind. She said Puerto Rico has water but doesn't provide water to its citizens.

Carmen Villanueva said there is a need to register all community aqueducts, so they know how many there are and where people live off nonpotable water. She said in one community, people have to travel 90 minutes to town for water, but many people don't have transportation to go buy water. She said Puerto Rico is like a developing country.

Carmen Villanueva said all the wells are on private property, so they needed to make a law clarifying that aqueducts are community property and landowners are prohibited from blocking access to the well.

Carmen Villanueva said that they need government laboratories to pay for tests that the services must do, which amount to more than \$8,000 per year. Secondly, she said, EPA needs to be present in all the communities. She said they can't leave here until improving the water situation is on the list of challenges.

Clean Water Infrastructure and the Caño Martín Peña Experience

Mario Nuñez | Director, Proyecto ENLACE del Caño Martín Peña

Lucy Cruz | President, G-8 (Group of the 8 Communities of the Caño Martín Peña)

Lucy Cruz said the G8 refers to a group of communities situated along El Caño Martín Peña. She said that people migrated to the area because it was easy to fish, swim, and boat. But by 2007, the water was almost gone because the government began to fill in the water as a way to control malaria. The G8 was formed to address the infrastructure issues that affect residents. Every two years, elected leaders of these communities meet to discuss self-management issues so that they do not have to rely on the government to solve everything.

Lucy Cruz said one issue is that communities are flooded with wastewater, and the lack of drinking water infrastructure means unsafe drinking water. She said that although the Biden Administration sent \$130 million for clean-up, without improvements to infrastructure the threats will continue.

She said that in addition to meetings and advocacy, G8 has several programs. For example, they run tours of the neighborhoods and publish a quarterly newsletter to keep people informed who may

not attend meetings. They have also developed community gardens and parks in formerly empty spaces, offer tutoring to children and adult literacy courses, run a neighborhood resource network, and offer roofing support, among other projects.

Mario Nuñez said that three entities have been recognized by Law 489: the G8, the Corporación del Proyecto ENLACE del Caño Martín Peña, and Fideicomiso de la Tierra del Caño Martín Peña.

Mario Nuñez said 33 percent of Puerto Rico’s mangroves are in the Estuario de la Bahía de San Juan. He shared a timeline of events from the 1890s to the present, explaining that mangroves were exploited for wood and carbon early on, and dredging debris was deposited there because there wasn’t today’s level of environmental consciousness. But with a land trust, he said, we began to restore the body of water. Studies were conducted in the mid-2000s, he said, and finally, in 2022, the federal government assigned \$163 million, and the restoration project began in 2023.

Mario Nuñez said the project has two phases. First, the terrain will be removed, and secondly, the rubble will be removed from the water. He said people did not believe this project would happen, and he thanks the communities who made it a reality. He said the effort includes all eight communities who worked together in over 700 meetings to identify problems and find solutions. He said there are ecological restoration projects and infrastructure to be built in communities of color for drinking water that were noted in a 2002 master plan. He said that mid-year last year was an analysis of all the projects and infrastructure, including viability and costs. He said drainage problems were noted and the project was signed because there are solid proposals for infrastructure.

Questions & Answers of Puerto Rico Community Panel

Sofia Owen said she heard speakers mention a need for accountability from EPA. The NEJAC has limited power, but she wanted to know how the NEJAC could best support them. Carmen Villanueva replied that one of the things they want is transparency with state government; in addition, agencies all need the same information.

Jerome Shabazz asked about the human costs of Hurricane Maria. Juan Rosario said people felt hopeless and didn’t know what would happen. He said problems must be addressed head-on, and the status quo is guaranteeing that the people most impacted by Hurricane Maria will be most impacted by the next disaster, as well. He said that the deaths of about 4,000 people should not happen again.

Na'Taki Osborne Jelks said that sometimes governments will pat communities on the back for the work they’re doing when they should be sending more resources. She noted the inequities around the rebuilding of energy infrastructure.

Ruth Santiago said hurricanes will continue to knock down lines and Puerto Rico will continue to see patterns of separate and unequal system development that disproportionately affect poor and afro-descendant communities. She said EPA needs to provide more scrutiny and to take a hard look at applying NEPA and other environmental statutes to make sure environmental justice communities are not overburdened.

Andy Kricun said that the technologies that would solve these problems already exist, and it's a question of will, not from the people but from the government. The drinking water problem could be corrected with funding. He said EPA could form an environmental justice task force to figure out how to bring existing technologies to these communities.

Sylvia Orduño said she heard that many issues are based in root problems, so doing a root-cause analysis would illuminate the power and resource struggles along with colonialism, racism, private-sector priorities and profits and how they contribute to the battle for sustainability, equity, and life itself. She asked the panelists for their perspectives on how EPA can better help and said it could be part of an ongoing conversation.

U.S. Virgin Islands Community Panel—Environmental Justice Challenges

Deanna James | President, St. Croix Foundation for Community Development

Frandelle Gerard | Director, Crucian Heritage and Nature Tourism, Inc.

Jennifer Valiulis | Executive Director, St. Croix Environmental Association

Deanna James shared a video that provided some background on the St. Croix Foundation. She said although they are small and unendowed, they are trying to accomplish big things. She said the U.S. Virgin Islands are the only predominantly Black American colony. She said they face barriers to socioeconomic advancement such as political status, geographic isolation, a small population, and egregious environmental inequities. She said their only public hospital is currently condemned, and they face other challenges such as food insecurity (98 percent of their food is imported) and the highest energy costs in the nation, among many other challenges.

Deanna James said the St. Croix Foundation's unconventional, holistic approach to community philanthropy, its community relationships, and its leadership allows it to do more than many larger organizations.

Deanna James said that about a year before Hurricane Maria, the Foundation launched a nonprofit consortium of more than 30 NPOs. Consortium members work in the areas of heritage culture and the arts, built and natural environment, mental health and human services, and youth and education.

Frandell Gerard said that Crucian Heritage and Nature Tourism (CHANT) formed to preserve a parcel of land as a Maroon Sanctuary Park. She said CHANT's founding principles are development from within, focusing on heritage and nature tourism programming, and building on traditional building arts as an engine for sustainable economic development. She shared some examples of their work. For example, after Hurricane Maria, they partnered with one of the cruise lines to distribute food, mattresses, and goods. As another example, she said the Free Gut restoration project seeks to restore homes in an area where historically free Black people have lived since 1777. On tours, they talk about slavery and the history of their island, such as that more than 125,000 Africans were brought to St. Croix by the Danish empire.

Frandell Gerard said CHANT also collaborates and is a part of the Consortium in the Cultural Heritage and in the Environmental sectors, with a goal of connecting residents with nature. Among

their other activities, CHANT recently partnered with three organizations to launch a community-based citizen science program.

Jennifer Valiulis said she has given public comments to NEJAC for many years, and she is glad to have more time to speak. She said her small nonprofit has three focus areas: education, conservation, and advocacy. Education programs seek to increase access to and comfort in the outdoors for everyone, and to build environmental literacy and community stewardship, such as through a summer camp for teenagers who learn about environmental jobs that might be available to them. She said the conservation element involves planting a lot of trees with community volunteers. Regarding advocacy, Jennifer Valiulis said that actions are based on needs and could include testifying on legislation or providing expertise.

However, Jennifer Valiulis said, the main issue is the St. Croix Oil refinery, which is emblematic of challenges in the Virgin Islands. She said that the refinery was constructed in the 1960s; during construction, a campaign was launched to destroy other economic opportunities, such as agriculture. The refinery was once one of the largest in the world; it was closed in 2012 after losing money for years and finally being held accountable by EPA for damage to the environment and health, including spilling 45 million gallons of oil into the groundwater, where it remains.

Jennifer Valiulis said the refinery was purchased and started operations again in 2021, released toxic gases from its first day of operations, which made people downwind sick and contaminated drinking water. After five months, the refinery claimed bankruptcy to limit its liability for recourse and mitigation. It was purchased by another company, and the community is in a cycle in which companies operate the refinery, cause damage, and then declare bankruptcy to avoid accountability.

She said there is lack of local government support; the government is vastly understaffed and can't enforce, monitor, or regulate. She said that recently the Third Circuit Court threw out EPA's decision to require a Prevention of Significant Deterioration permit, which would have required the refinery to be brought up to date. Now, she said, they are scared.

Questions & Answers of U.S. Virgin Islands Community Panel

Claude Walker asked Deanna James and Frandell Gerard to talk about advocacy their groups may be involved in regarding the refinery. Deanna James said everyone has a role to play in advocacy. She said funders do not always understand the peculiar status of the U.S. Virgin Islands. She said the political environment is punitive. Advocacy efforts have aimed to get funds from national philanthropy to support the work that nonprofits are leading.

Frandell Gerard said that we have to raise awareness about what advocacy looks like. She said they lost \$100,000 from the legislative budget recently because they were considered "anti-development." She said advocacy is dangerous work.

Claude Walker asked what the organizations need in terms of support. Jennifer Valiulis said data; there is no monitoring or health data on accidents from the refinery. She said it is a punitive environment but the more people that come together the stronger they will be, and that comes

from community organizing. She also said support with accurately filling out a grant so small groups can access funding.

Frاندell Gerard said she needs unrestricted funds, capacity building money. She said they are on the ground doing the work. TA is good, but when experts come from out of the locality and can't pronounce the names of the places you live in, it's worthless. She also said they needed workaround strategies, such as funding a local NPO to hire local staff and assign them to the federal government.

Deanna James agreed on the need for unrestricted funds. She said federal money is incredibly expensive for the NPOs they work with. In addition, she said she wants national partners to recognize the power of relationships.

Na'Taki Osborne Jelks asked if there is a way for EPA to give funds not to local governments but to local NPOs who can be assigned to a government agency. She mentioned the West Atlanta Watershed Alliance, which hosted an Urban Waters Federal Partnership ambassador who worked directly with EPA through a cooperative agreement.

Ambrose Carroll asked if there was a time when people on the island were closer to and more knowledgeable about the land. Frاندell Gerard said yes; St. Croix had been a net exporter of agricultural products, but in 1964, the federal government gave land to a person to build an aluminum refinery. He took all the agriculture equipment and drove tractors and trucks into the sea. He even dismantled old slave villages where sugar planters had still lived, taking roofs and windows off the houses. They destroyed the largest mangrove in the Virgin Islands. Then they built an oil refinery. Now St. Croix is the poorest of the islands.

EPA/NEJAC Presentation: Grants Update & Opportunities for Feedback on the Upcoming Environmental & Climate Justice Program Funding Opportunity

April Karen Baptiste | Professor, Environmental Studies and Africana and Latin American Studies, Colgate University

Bruce Binder | Senior Policy Advisor, Office of Environmental Justice and External Civil Rights

Alexandra Gallo | Special Advisor, OEJECR, U.S. EPA

Jerome Shabazz | Executive Director, JASTECH Development Services Inc. and Overbrook Environmental Education Center

April Karen Baptiste said the IRA Climate Action, Equity, and Accountability Consultation Team had 14 members who came together for a one-time engagement to give initial feedback on the Environmental & Climate Justice (ECJ) Program to benefit disadvantaged communities. She said they offered feedback in content areas for the Notice of Funding Opportunity (NOFO), NOFO processes, capacity building, and next steps.

Regarding potential projects, April Karen Baptiste said that the consultation team recommended:

- Infrastructure and related projects
- Resilience hubs/environmental justice centers in communities

- Workforce development
- Education programs
- Climate-related projects
- Direct investment into communities

Jerome Shabazz said the team's recommendations on the NOFO process included those addressing grant eligibility, the application process, such as the need for flexible timelines; transparency about who's reviewing the grant application and their familiarity with the community and the issues; barriers to access, such as the capacity to get through the grant process and to manage large grants; and gaps, such as the need noted earlier in the day to have unrestricted funding.

Jerome Shabazz said that Capacity Building recommendations included setting up a TA center with a variety of learning modalities, conducting direct outreach to small organizations, and pairing small organizations with a grant writer.

Jerome Shabazz said that the consultation team's next steps included ensuring grants get to disadvantaged communities. He said we see a legacy of spending but not a legacy of transformation. In addition, the team recommended helping communities apply for grants and creating a climate and energy workgroup to ensure that issues around climate and energy are funded.

Alexandra Gallo said that she and Bruce Binder are the leads for developing the NOFO for the \$2 billion in grant funding from the IRA and \$200 million for TA. She said there are 16 TCTACs selected for award, and EPA will be issuing a new NOFOs for TCTACs in Regions 8 and 1 in late July.

As far as the planning and project development phase, Alexandra Gallo said EPA is reviewing grantmaker applicants. Awardees will be announced in November 2023, with up to \$300,000 in funds available to awardees in 2024, who will in turn make subgrants available in 2024.

Regarding the NOFO for the \$2 billion, Alexandra Gallo said that all grants must benefit disadvantaged communities, which will be defined by the EPA Administrator soon. She said all grants must be awarded by September 30, 2026, and all funded activities must be completed in three years from the date the grant was executed. She said they have very broad authority and flexibility in terms of what can be funded under the grant, including workforce development and community engagement.

Alexandra Gallo said the Community Change Grant is an opportunity to invest in specific communities holistically. Alexandra Gallo turned to the results of the consultation with the NEJAC team. She said the program rests on three pillars: Infrastructure, People, and Services. She said communities need infrastructure investment to adapt to a changing climate. Infrastructure projects should be designed with communities to ensure their needs are met. She said flexibility is needed to address the cumulative impacts of racial, economic, environmental, and social injustice. Processes need to be in place so that communities and government can work together in long-term partnerships. She said services are a means to accessing investments, so a focus on access to affordable housing, health care, education, and transportation can help achieve that. She said they

are looking for a comprehensive approach, not just a focus on investments in infrastructure. They want to remove pollution from a community but also bring new investments for even greater change. She said award sizes will likely be about \$10-20 million.

Alexandra Gallo said that the consultation team was also clear that there is a need for system-level changes, so EPA is introducing a smaller, community change grant opportunity for smaller organizations. She said EPA will have a 12-month rolling application process and transparent scoring. She said they will be transparent with the NEJAC about changes they may not be able to make because of legal or policy constraints.

Alexandra Gallo said that although the funding opportunity is not available yet, it is not too soon to start preparing. She advised potential applicants to search for partners now and build coalitions. She also reminded the NEJAC that Infrastructure projects have to be able to be completed within a three-year window.

Paula Flores-Gregg said that Q and A will happen at the business meeting.

Jerome Shabazz said that NEJAC should view the framework not from a disparity position, but from a prosperity position.

April Karen Baptiste said it's a great opportunity to put funding directly where people have been asking for it. She encouraged people to prepare and to apply. She said the feedback was a one-time engagement and was just a start.

Jerome Shabazz said there may be an opportunity to keep the conversation going.

Public Comment

Kevin Shockey (Ahora Inc.) testified to the need for updated infrastructure upgrades in Puerto Rico, particularly the need to protect remote and isolated communities by ensuring their mountain roads and bridges will not be destroyed by run-off from torrential rains. He said electrical and water systems are also antiquated; much of it was installed more than 50 years ago. He said that pumping stations need uninterruptible and renewable energy systems, and he recommended microgrids for energy distribution to replace the current power lines, which are extremely vulnerable to extreme weather. He also called attention to Puerto Rico's rainforests, which host irreplaceable habitat. He said Carite State Park has been abandoned since Hurricane Maria. He noted that there are five reasons local organizations have difficulty accessing federal assistance: (1) English literacy; (2) applicants seek help, but do not receive it; (3) many people are unaware of options (4) there is sparse cell phone service and internet access; and (5) there are few community-based organizations and insufficient resources.

Arturo Garcia-Costas (New York Community Trust) said that lifting up the leadership of environmental justice communities has been a pillar of his organization's grantmaking efforts, including nonprofit organizations in Puerto Rico and the Virgin Islands. The Trust helped launch the Climate Strong Islands Network in San Juan in February 2020. He said that the residents have proven resilient in crisis after crisis, and he hopes lasting relief will come. He said it is absurd that, on an island that averages 2800 hours of sunshine every year, less than 2 percent of the power

generated comes from the sun. He said disarray and politics plaguing Puerto Rico's energy sector could make it extraordinarily difficult for local stakeholders to access Greenhouse Gas Reduction Fund resources. He said that entrusting private companies with deep interests in fossil fuel to lead the way to clean energy is like asking the fox to design and rebuild a chicken coup it helped destroy. He said the federal government, philanthropy, and clean energy companies must come together to overcome opposition from public and private energy officials.

Andy Kricun said that there are opportunities to make Puerto Rico's water system more resilient and to reduce energy costs for residents. He suggested Puerto Rico Electric Power Authority (PREPA) could apply for some of the funding. Arturo Garcia-Costas said PREPA is doubling down on fossil fuel.

Wanda Rios (Asociacion de Residentes La Margarita) said her community in the south of Puerto Rico has been affected by recurrent flooding. She said her home has been flooded five times, and the river flowed through her house for six to eight hours after the most recent hurricane. She said that nobody knows about or complies with the National Environmental Policy Act (NEPA). She said her community has an energy co-op to become more resilient. She said that although most members of the community are at least 70 years old, nobody helped them organize. She said they don't have the kind of funds it takes to pay people to write grants.

Marysel Pagan Santana (Migrant Clinicians Network) said that for 35 years her nonprofit organization has been offering TA and occupational therapy, among other things. They have worked with communities to address emergencies caused by climate change. She said a core value is community participation in improving their quality of life. She said that grants are out of reach for many of these communities impacted by climate change disasters. She said the Request for Applications system must be decolonized and applications must be in the languages that communities speak. Currently, they bear the burden of translation. The complexity of the system is also an issue, so assistance must be accessible to people, especially those in remote areas, where internet coverage may be sparse. Finally, the government must do a better job of reporting back to the people they gather information from so that communities have shared information. She said that it is important the communities affected by climate disasters not only have services but have opportunities for actively participating in the project planning and implementation.

Isatis Cintron (Climate Trace PR) said her organization is an NPO in Puerto Rico that builds capacity for climate justice and public participation. She said they have heard about the critical need to transform Puerto Rico's energy infrastructure and to ensure climate justice. She said there is a need for strengthening civil society in terms of accessing finance, advocacy skills, and work development, as well as a need to enhance the institutional capacity for participatory climate governance. She said trust is a big issue and there is a need for government accountability and transparency. She said Puerto Rico is being recolonized. She said they need land rights and to ensure they can plan for climate change as well as ensure that infrastructure projects are based in sound science and respect the priorities of local communities. She said communities lack capacity, language, and technical access to apply for grants, and, in any case, larger organizations with long histories tend to get the funding despite the fact that CBOs are much more connected to communities.

April Karen Baptiste said that language is an important consideration, and some U.S. territories have Spanish as their primary language. She asked EPA if they are taking this into consideration as they develop NOFOs. Marysel Pagan Santana said that she has requested Spanish-language NOFOs as well as in-person (rather than virtual) TA. Jacqueline Shirley added that she has heard many times that people want to do an oral description of their project rather than a written application.

Amar Olivo Beltran (private citizen) said that, although she has a whole essay on the problems they face, it can be summed up by the word “colonialism.” She said there is a lot of government corruption that extends beyond the issue of waste that was mentioned earlier in the day. She said a lot of people are displaced to make more property for people overseas trying to escape their problems, and our problems are going to take a back seat.

Edwin Vazquez Asencio (RECAP Solutions) said his NPO has offered technical assistance with solid waste and water services in Puerto Rico and the Virgin Islands for more than 24 years. He said that recent disasters, including hurricanes and tornadoes, revealed how fragile communities are. He said the people are strong and resilient, but the infrastructure is not. He said the solid waste problems are severe. Several landfills have orders to close immediately, and there are clandestine landfills in communities because there is an insufficient capacity to deal with solid waste. He said more education and infrastructure are needed to deal with waste in the Caribbean. He said a circular economy would significantly change the economic impact in our communities because now they must pay to have waste material removed from the island.

Isabel Valentin (Syracuse Environmental Finance Center) said that Syracuse EFC works to access funds for infrastructure projects to improve public health, protect the environment, and address other social issues. For example, she said that in Puerto Rico they are helping with septic tanks and educating people about recycling. She said that she had heard that EPA is going to crack down on environmental crime in Puerto Rico. She said a good use of resources would be to create working groups that support communities. She said Puerto Rico has been in violation of the Clean Air Act, the Clean Water Act, and more, doing damage to plants and animals. She asked how EPA can pretend to support environmental justice without the social or governmental infrastructure needed.

Sylvia Orduño asked if there was anything EPA can do to make residents feel more comfortable providing comments.

Isabel Valentin said to start with education; the education system is underfunded, and people do not learn about climate impact unless they have higher education. Isabel Valentin said that there is a sense that, because they are a small island, nothing they do will have a significant impact. She said they need to teach that everybody is accountable for advancing environmental justice.

Richard Mabion asked about the relationship between law enforcement and low-income communities in Puerto Rico. Isabel Valentin said that when a man was shot in front of her house, the police were the last to get there, although the precinct is right down the street. So, the community does not rely on them.

Matthew Tejada said that EPA is creating a council just like NEJAC, but just for young people.

Bravio Quintero (EDF) said he is an environmental scientist and a citizen concerned about water contamination in Puerto Rico, which happens daily. For example, he said, PREPA uses glyphosate and other pesticides and herbicides to eliminate weeds in water channels that provide water for thousands of people. Secondly, he pointed to the flooding of poor neighborhoods with wastewater. He said feces is on the streets where people walk, and EPA is doing nothing about it. In another example, he said that contamination of the Atlantic Ocean affects the coral reefs. He said they need TA to manage the channels, as well as TA to ensure water pumping systems do not mix clean water with wastewater and do not contaminate the ocean. He also noted that a rice company fumigates by airplane and contaminates the drinking water channels.

Andy Kricun asked to clarify the areas these were happening in. Bravio Quintero said the town of Ponce and the coastal Barrio La Playa. Bravio Quintero iterated that the community has flooded with sewer water following work by the Army Corps of Engineers; he said that EPA is aware of the problem yet has done nothing. He said it can happen in dry weather as well as when it rains. Bravio Quintero said the problem is not just in Ponce, but all over Puerto Rico. Mike Tilchin asked what specific herbicide is used to manage vegetation in the channels. Bravio Quintero said it is 53 percent glyphosate as well as glufosinate.

Jose Hernandez said he has been involved with cleaning beaches in Puerto Rico for many years and has been denouncing environmental crimes. However, he said, there are no programs to help communities; instead, people are punished; literally arrested, taken to court, and imprisoned for trying to restore mangroves that suffered as a result of construction. Privileged people rent homes in those areas. Instead of bringing people together to save the coast, they punish the people. Many of them are 80, 90 years old and are in court for trying to save the environment.

Brenda Torres Barreto urged the NEJAC to take the testimony to heart and support the islands. Sophia Owen and Jan Marie Fritz iterated the need for NEJAC support.

Amy Tamayo (Alianza Nacional de Campesinas) said her organization is a women's umbrella organization with 15 member organizations in 20 states. Their mission is to unify the struggle in the areas of gender-based violence, protecting worker rights, promoting humane immigration reform, and advocating for environmental justice. She shared a story of a farmworker from Oregon, who said that agriculture is a dangerous sector because of pesticides. Often workers are exposed to pesticides but don't know which pesticides they are exposed to or the risks. Workers often don't have protective clothing. She said that she is exposed to pesticides even though her work does not involve spraying. When she began working as a farmworker, she experienced headaches, vomiting, allergic reactions, and irritation all over her body. She still experiences headaches and irritation, as does her husband, who has been a farmworker for 20 years. She often washed his contaminated clothes with the family laundry because she did not know how dangerous they were. Her son's clothes became contaminated, and he had rashes all over his body. But the doctor didn't ask specific questions or give her any information to better protect her family. Both she and her husband have had cancer, and one of her children has autism. She said she wants to be able to support her family and be safe at home and work, and she also wants crops to be grown safely. She said trainings are not in Spanish. She said studies have linked farmworker pesticide exposure to infertility, miscarriages, birth defects, respiratory conditions, and cancer. She said that every year,

there are about 3,000 cases of poisoning from pesticide exposure. She said EPA believes this is an underestimate.

Sylvia Orduño said that the NEJAC has a farmworkers and pesticide workgroup that is looking into the technical, regulatory, and enforcement aspects of the problem, as well as the human aspects. She asked Amy Tamayo what would be helpful. Amy Tamayo said workers need to know what pesticides they are being exposed to and the risks to their health. She said USDA or EPA could assist with this. Secondly, Amy Tamayo said there needs to be monitoring by government agencies. Jill Lindsey Harrison said it's important to demonstrate the human toll that pesticides take on human lives.

Shaina Oliver (Private Citizen) said she was calling from Denver, Colorado, where the air quality is terrible. She urged EPA to strengthen methane standards. She thanked EPA for grants for community air monitoring projects. She asked EPA to provide advanced data report on methane emissions and leaks, as well as on pipeline advancement. She said there are a lot of grants available now, but communities need TA to apply for them because the process is complex.

Scott Clow said that there is a gap in TCTACs in Region 8 (where the Shaina Oliver is located), so EPA has issued a new NOFO for that. He said he hopes there will be a TCTAC in the area soon. He said the issues of methane as well as oil and gas are more complicated than they need to be as far as air quality regulation. He said federal agencies need to come together to address the issues Shaina Oliver raised.

Larry Silva (Mountain View Neighborhood Association, NM) said they have been working very hard to deal with air contamination in their community. He said that permitting processes look only at the application and don't consider cumulative impacts of pollutions that his largely Chicano neighborhood has been subjected to for many years. He said they are trying to get regulation passed with no external funding. He said that powerful businesses, industries, mining and oil companies, and real estate developers are opposing their volunteers' efforts.

Maya Nye (Coming Clean) said her organization is a network of over 150 organizations that are working to reform the chemical and fossil fuel industry. She said EPA has recently taken steps in the right direction to address the high cancer risks posed by industries that disproportionately impact environmental justice communities. However, she said EPA's regulations are disjointed and confusing, and she has been told they do not apply to the frontline community she grew up in, although residents experience cancer risk far above what EPA considers acceptable. She asked the NEJAC to renew its 2019 recommendation to EPA to regulate ethylene oxide, calling on Administrator Regan to issue strong protections to eliminate dangers to workers and communities and recognizes the reality of community and worker exposure, which is not just one chemical at a time.

Scott Clow volunteered to take the lead on drafting a letter to send to Administer Regan on the issue. Loren Hopkins said the NEJAC will issue recommendations on protecting frontline communities.

Cynthia Manfred (Guarda Rio) said that Guarda Rio is a community group in San Juan. In addition to oral comments, she said her group is sending three letters of written comments. She has also hand-delivered comments to Administrator Regan during his Journey to Justice tour last year. She said she hopes the NEJAC can advise EPA to influence other government entities, including the U.S. Congress and the government of Puerto Rico to use nature-based solutions wherever possible and to assign a high value to ecosystem services and the ecological preservation needed for long term resilience in any civil works project or mitigation plan contemplated. She said EPA should support projects that mitigate drought and temperature rise and not allow projects that make them worse. She recommended requiring the U.S. Army Corps of Engineers to convene an independent technical advisory board to develop a comprehensive plan detailing how their projects in Puerto Rico will work in concert and align them with the Biden Administration's policy guidelines on forward-looking climate resiliency, nature-based solutions, and environmental justice.

Millie Piazza thanked speakers for highlighting the inadequacies of the government processes. Yvonka Hall noted that many people in low-income and disadvantaged communities don't have flood insurance in some instances because insurance companies cancelled those policies. She said it's important to provide grants and other efforts to ensure homes are flood-proof, particularly in urban areas.

Jo Banner (The Descendants Project) said her organization fights to protect the health of those who descended from slaves as well as those in Cancer Alley. She said Cancer Alley has about 200 industries, mostly petrochemical, fertilizer, pesticide, and aluminum plants. She explained that the area had been plantation land, which was purchased by petrochemical companies, leaving descendants of enslaved peoples now living at the mercy of polluting industries. She recommended considering the ongoing impacts of slavery on these communities. She said people in Cancer Alley fear that federal funding will go to entities such as the Port of South Louisiana, which will increase the cumulative impacts of pollution. She said they would like projects that add to the pollution to be denied federal funding. She said organizations like the Port of South Louisiana should not be rewarded. She asked the NEJAC to draft a letter asking EPA to require environmental impact statements for every project attempting to locate in Cancer Alley.

Na'Taki Osborne Jelks asked Jo Banner how EPA has been involved so far, if at all. Jo Banner said Administrator Regan visited the area. They are currently trying to navigate the IRA process. She said they need more engagement with EPA. Sophia Owen clarified that, by IRA, Jo Banner was referring to the Civil Rights Act (Title VI) Informal Resolution Agreement and not the Inflation Reduction Act. Jo Banner confirmed she was referring to Title VI. Cemelli De Aztlan said that she has learned to ask for a full environmental and health impact assessment, rather than just an environmental impact statement.

Ben Pauli said he agreed we need to be factoring the ongoing effects of slavery into these kinds of assessments, and it should be influencing the distribution of resources and priority setting. He said they've also been discussing how to quantify impact or capture it qualitatively. He asked for suggestions. Jo Banner said that it's important to go back in history. She said plantation owners in Louisiana were involved in writing laws that have been detrimental to Black people that are still on the books today. She said these laws show how communities like hers are in the condition they're in

today. She also suggested looking at the demographics of impacted communities, particularly regarding race.

Jeremy Orr said this community may be a Title VI battleground. He said the NEJAC needs a Title VI working group. Andy Kricun iterated that cumulative impacts and Title VI are important tools, but they'll take time. He suggested requiring facilities generating pollutants and carcinogens to use the best available technologies, which will minimize impacts.

Stephanie Herron (Environmental Justice Health Alliance for Chemical Policy Reform) said her organization is a national network of environmental and economic justice groups in communities disproportionately impacted by toxic chemicals and legacy pollution. She said that, in EO 14096, President Biden said that clean air and water, safe foods, and a healthy environment were elements of justice, liberty, and equality. She said that EPA has recently taken a step in the right direction by proposing to reduce exposure to ethylene oxide, but that air toxics regulations are confusing, siloed, and inadequate. She said a siloed approach will not help communities in Cancer Alley, which face threats from multiple types of toxics. She asked NEJAC to draft a letter iterating the 2019 recommendation to regulate ethylene oxide.

Sylvia Orduño asked if the letter the NEJAC drafted at the November–December meeting has had any response for the community. Stephanie Herron said that, to her knowledge, there has been no response.

Mayra Reiter (Farmworker Justice) said that farmworkers must have access to the Spanish versions of pesticide labels mandated by the Pesticide Registration Improvement Act. She said that Department of Labor data show that Spanish is the primary language of 62 percent of farmworkers, and only 68 percent of farmworkers reported that they received training on the safe use of pesticides within the past year. She recommended that EPA convene focus groups of farmworkers (with Spanish interpretation services) to learn the most effective ways to ensure label accessibility. Also, she said that EPA should pilot test materials, technologies, or methods intended to improve accessibility before they are deployed. She said that QR codes for labels must be posted on field signs restricting entry and take-home cards must also be available. Bilingual labels must be physically posted in areas where farmworkers congregate, and EPA must conduct outreach through social media apps used by farmworkers. Labels must be regularly updated. She said farmworkers must be protected from employer retaliation for seeking access to pesticide information.

Jill Harrison asked if Mayra Reiter would like to speak more generally about the context of increased immigration, surveillance and policing, and enforcement. Mayra Reiter said farmworkers do not have control over their work conditions, and even with information, growers are still going to control the workplace. Mayra Reiter said this is why EPA should step up oversight to ensure pesticide regulations are being followed. Currently, states are only required to report on activities funded by federal dollars, and penalties are mild.

Cemelli De Aztlan, speaking as a community member, said the Clean Air Act is outdated. Black and brown communities haven't had clean air for decades, and the government continues to allow exceptions, waivers, and loopholes. She said the impacts are forever. She said El Paso hasn't met clean air standards in 26 years, and they have received a failing grade from the American Lung

Association every year since 2000. She said El Paso has one of the highest rates of Alzheimer's in Texas, and research shows evidence of higher PM_{2.5} levels and increasing dementia. She said addressing historical environmental racism is overdue, and broken promises to frontline communities must be mended. She said EPA has known of these issues since 1999, yet problems keep getting worse. She urged the Biden Administration to follow through on its commitment to environmental justice and update ambient air quality standards for PM and ozone and to intervene on fast-tracked BIL projects that have not completed the proper evaluations or assessments.

Mike Tilchin said that the NEJAC should look at its recommendations again and ensure the issues Cemelli De Aztlan raised are adequately covered. He said they have not received a response from EPA on the Air Quality and Community Monitoring Recommendations submitted last fall.

Loren Hopkins agreed that studies indicate there are health risks below the PM_{2.5} standard, as she has done some of this work herself.

Sophia Owen volunteered to work with Mike Tilchin to review recommendations made in the Air Quality workgroup. She said they will hear recommendations about NEPA tomorrow, but the NEJAC has consistently heard about the need for more oversight and attention around NEPA.

Ben Pauli said that hearing about how long her community has been waiting for relief points not only to an accumulation of health harms but an accumulation of injustice, as well.

Andy Kricun said the group should ask EPA for follow up and amend the comments as necessary. He iterated his suggestion that EPA require the worst emitters to use of the best available technologies.

Jan Marie Fritz said the letters they write should have a suggested response date or they should be discussed at public meetings.

Cemelli De Aztlan clarified that they are asking EPA to ensure that currently classified non-attainment communities that are receiving historic federal funding be prioritized to ensure the adherence and protection of civil rights, environmental justice, and health and safety. She said her community's residents want EPA to ensure that the federal funding from the BIL for renovations of the bridge of the Americas in El Paso, Texas, be used to renovate, mitigate, and reduce emissions at the international port of entry, not to allow more semi-trucks.

Jacqueline Shirley, speaking as a community member, said the Native village of Chefornek, Alaska, asked her to relay their need for running water and indoor plumbing in their village. She said a water survey indicated the nearest viable water source was five miles away, so a pipeline was deemed too expensive. She said we can build a 2,000-mile pipeline across the state but don't have money to bring water five miles to a Native village. The community would like a plan B, such as a reverse osmosis system.

Scott Clow said he has been trying to get some tractions with the Office of International Tribal Affairs and American Indian Environmental Office for years. Sylvia Orduño acknowledged it was a dire situation and asked if there was an immediate response that could be taken, such as water trucks and Porta-Pottys. Jacqueline Shirley said no because there is no road system to the

community. She said even electricity is diesel powered and fuel delivered only once a year by barge. She said they are not asking for luxury amounts of water, only for about 10 gallons a day per person. She said the U.S. average is 100 gallons a day.

Na'Taki Osborne Jelks said it's important, when thinking about communities around the country that need funding to remember that some places are fighting for basic amenities.

Paula Flores-Gregg adjourned the meeting.

DAY 3

Paula Flores-Gregg opened the meeting and welcomed participants. She reminded participants of the meeting format and how to access Spanish language interpretation.

Welcome & Recap

Matthew Tejada | Deputy Assistant Administrator for Environmental Justice, OEJECR, U.S. EPA

Sylvia Orduño | NEJAC Co-Chair

Na'Taki Osborne Jelks | NEJAC Co-Chair

Michael Tilchin | NEJAC Vice Chair

Matthew Tejada welcomed everyone and said he appreciated those who took time to travel and share their stories on the previous day. He said the NEJAC has been working hard over the past year on several charges. He said several members from EPA headquarters will be joining the meeting virtually, reflecting EPA's commitment to environmental justice.

Sylvia Orduño said the previous day's public comments were powerful and there is much to be done about the experience of residents of Puerto Rico, the Virgin Islands, and other island communities. She said she is proud that there are expectations that the NEJAC will be instrumental in facilitating solutions.

Na'Taki Osborne Jelks said that the previous day's panel discussions and public comments brought some themes together, and she is thankful to those who shared their lived experiences, expertise, and potential solutions. She said the NEJAC is ready to collaborate with EPA and hold it accountable.

Mike Tilchin said the information from panelists and public commenters was extraordinary, and he was especially appreciative that panelists offered solutions. He said it is now on the NEJAC's shoulders to elevate those solutions in their work ahead.

NEJAC Member Introductions

Cemelli De Aztlan, present	Ayako Nagano, JD, present
April Karen Baptiste, present	Sylvia Orduño, present
Joy Britt, not present	Jeremy F. Orr, JD, present
Rev. Ambrose Carroll, Sr., PhD, present	Na'Taki Osborne Jelks, PhD, present
Scott Clow, present	Sofia Owen, JD, present
Leticia Colon de Mejias, not present	Benjamin J. Pauli, PhD, present
John Doyle, not present	Jonathan Perry, not present
Jan Marie Fritz, PhD, C.C.S., present	Millicent Piazza, PhD, present
Yvonka M. Hall, present	Jerome Shabazz, present
Loren Hopkins, PhD, present	Jacqueline Shirley, MPH, present
Andy Kricun, present	Pamela Talley, DNP, present
Jill Lindsey Harrison, PhD, present	Michael Tilchin, present
Richard Mabion, present	Brenda Torres Barreto, present
Nina McCoy, present	Sandra Whitehead, PhD, present

Michael Tilchin confirmed a quorum.

Opening Remarks

Robin Collin | Senior Advisor to the Administrator for Environmental Justice, U.S. EPA

Thanks so much NEJAC members; it's always a moment for me to treasure to spend in your presence. And I thank you for this opportunity. Bienvenidos [inaudible]. I'm reminded, as Matt Tejada mentioned yesterday, EJ is a movement. A movement is a group of people who are working together to create change for our communities that have been sacrificed to greed and left in sickness and death. We're committed to changing the colonial vestiges in our land, in our air, in our water, and maybe most importantly, those that remain in our minds. I've dedicated my life and my work to our movement, and that's why the Administrator has given me the honor of being his senior adviser on environmental justice and leading the agency in the critical work of embedding environmental justice into the DNA of EPA. I want to thank all of the NEJAC members, those that are outgoing and those that are new. The work that we're doing together is changing our world and our work. And we are showing the world how a multiracial, multi-ethnic democracy engages the greatest environmental and human health challenges that humans have ever encountered. That is climate change, and environmental justice is the way. I want to thank Regional Administrator Lisa Garcia, her staff, and especially the Caribbean office. Thank you to our hosts here in Puerto Rico, Brenda Torres and her team at the San Juan Bay Estuary program. And I especially wish to thank community members who have taken the time and the money to travel to be here with you and who have worked so hard through NEJAC to keep our work aligned with communities. As I listen in, and I hear the persistence, the devotion, and the fearlessness that we demand, we also must call out that colonialism of the mind.

Let me look back for a moment. Because we have come a long way. And we have a long way to go. Looking back at the movement and NEJAC, movement and NEJAC have been partners working together with persistence and devotion for 30 years. NEJAC was established on September 30, 1993. Congratulations on 30 years. The first director of our Office of Environmental Justice was an African American woman, Dr. Clarise Gaylord, who was a PhD in zoology—and back then she was even more of a unicorn. I urge you if you've never read the article, Lady Justice in Grist magazine, it is an important article about the woman who started the work at EPA. And we remember her fondly.

We now have a national program devoted to environmental justice and civil rights. And we launched it in Warren County, North Carolina. That was no accident. Warren County, North Carolina, is the place where environmental justice protests sparked our movement. And all of this that we see today, and that I'm about to talk about is a result of persistence, devotion, and partnership with our communities.

Thank you to our intrepid EJ staff, and our leadership, just like the movement family that we are. So, the work in our first years is just beginning. We have a long way to go. Our cumulative impact work will change the way that EPA does its fundamental work in communities, it will change from the inside of the agency, as well as from the outside. And thank you to the NEJAC work group on cumulative impacts. We have lots of work to do together, and we are off to a great start together in partnership. Cumulative impacts are nothing less than the foundation for embedding EJ into the DNA of EPA. I liken the work of cumulative impacts in the agency to doing not just a cosmetic remodeling, but the kind of remodeling where you have to lift the foundations and put a new foundation underneath. That means changing worldviews; that means deliberately, intentionally confronting the colonialism of the mind that keeps us from doing this work. I want to thank our Farmworker and Pesticides work group; they are dedicated to lifting up the work that must be done now more than ever before, to protect the people who feed us from the poisons that kill all of us. Even as they work, we need to protect their families, often children working in the fields with their parents, again, with partnership and persistence. They have never let us forget or dismiss them. And we need to make sure that that workgroup is successful. We will make sure that that succeeds.

This year has also brought a new set of resources into environmental justice work at EPA. We now have assets; we have resources to distribute; substantial resources to distribute to communities with whom we have partnered through NEJAC for these 30 years. We have never had these kinds of resources before. I'm speaking in part about the \$3 billion in environmental justice block grant money. We have at headquarters designed a new way of creating financial opportunity for our communities. Had we simply gone into the traditional financial modes to distribute that money, I don't think it would reach our communities. I'll just say that. But we have reached out to establish new networks of financial opportunity

through trusted partners, like Inter American University of Puerto Rico to make sure that what we are doing is to provide opportunities on island, in our communities, with trusted partnerships. We're also committed to providing teams of people--real people with real names that you can see and touch and reach out to--in every region to do this work. These are our boots on the ground, there will be EJ teams in every region of EPA. And their only work—and I stress only—their only work is environmental justice. We have a long way to go. And I believe with the skills and mindset of our movement, and with the resources, and the boots on the ground that we now have, we can make change.

And in parting, I would like to say I'm so sorry that I had to miss this meeting. I look forward to seeing you in person at the next one. And in the meantime, my assistant is Surabhi Shah, who will be known to many of you, because she's already done work on NEJAC and in Puerto Rico. She's been in the room with you this entire week, and she is a tireless advocate for overburdened communities. Please feel free to reach out to Surabhi at any time. I think that that leaves us ample time to take one or two questions.

Cemelli De Aztlan said that farmworkers are rarely recognized, and she thanked Robin Collin for recognizing them. She asked if there was a model or an example Robin Collin would like to share about cumulative impacts work that has been implemented so far.

Robin Collin said some cumulative impacts work is just beginning, and she hopes to be able to deliver a more complete list as they proceed with the cumulative impacts framework. In the meantime, she shared work done under the Clean Water Act in the Houston Ship Channel that looked at facility density and siting. She said studies demonstrate long-term effects of industrial density. She added that they're also beginning new work in Chicago and are looking at places to bring this work in overburdened communities from Louisiana to Massachusetts to California. She said they are bringing resources and partners to the table in a way they have not been able to do in the past. She said she looks forward to the next meeting when she can provide a better place-based account.

Aya Nagano said there are environmental justice teams in every region, but they don't know what to do with them yet. She asked what directives they have and what are they doing.

Robin Collin said it takes time to get the teams through the bureaucracy to get them paid, but they will have durability no matter what the politics are. She said one strategy in place to make the work durable is that they will be full time, civil service protected workers. In August or September, teams will begin training, and it will include history. NEJAC has critiqued EPA for 30 years, and EPA has been better. She said it may sound like extractive work, but she doesn't think it is because people will be staying. Many of the new staff are young. Public engagement work will be part of the training. She said she hopes they will be the go-to people for cumulative impacts work.

Jill Lindsey Harrison said lately she has been interviewing environmental justice advocates hired by regulatory agencies to identify contributions that environmental justice advocates can bring to the positions, and she said environmental justice advocates of color and native/Indigenous advocates

face challenges. One challenge is that a lot of staff are very committed and feel their work has been largely effective, which contrasts with the environmental justice view that the work has not been effective. She asked Robin Collin what she will do to ensure that people with some of the richest experiences will be hired to fill those positions and have authority over other staff so that they're listened to, and that they're networked with other like-minded people across agencies.

Robin Collin it is imperative for activists to find a career mentor who wants to help; she said EPA can deliberately establish good working relationships with mentors who know how to help. In the larger sense, she said framing our message within the agency is important. Within the agency, it is necessary to pivot: you need to do your work better by centering it in communities. She said the message of “doing better” is received if we know that what we're suggesting will make it better.

Mike Tilchin said that the Cumulative Impacts workgroup is concerned that as they're exploring ideas, they often think beyond EPA's current authority to drive change. He asked Robin Collin to give the workgroup guidance regarding boundaries.

Robin Collin said cumulative impacts means looking at every impact from the community point of view. EPA is in a statutory silo. She said she hopes as we catalog evidence from different sources, we are also creating a platform for action. She said the platform for action should make visible to communities what is largely invisible, meaning the statutes, authorities, and rules. She said that enforcement is so scattered that it's almost invisible. She said she hopes by attaching responsibility to cumulative impacts we will make visible a network of responsibility.

Richard Mabion said that partnership is missing in our communities. He said organizations think they can do it alone, but they can't do it individually. Robin Collin agreed that partnerships are key and TCTACs will help.

NEJAC National Environmental Policy Act (NEPA) Training Workgroup Recommendations Presentation

Adriana Hochberg, Deputy Associate Administrator, Office of Policy, thanked the workgroup and co-chairs Aya Nagano and Millie Piazza for their work and continued support to the agency. She said the workgroup emerged from EPA's desire to learn how it can incorporate a deeper understanding of environmental justice into its training courses for EPA staff, who are responsible for reviewing other agencies' compliance with NEPA. She said EPA has made tremendous effort to help EPA reviewers improve their understanding of NEPA, and the workgroup's recommendations will set a high standard of accountability and consistency. She said that they will provide an update on their considerations of the NEJAC recommendations at the December NEJAC meeting.

Millie Piazza recalled testimony from Ruth Santiago that spoke directly to NEPA and how money is flowing without consideration for energy, justice, and democratization, and that projects that meet permitting standards don't protect the short- or long-term health of people. She noted that NEPA has been a longstanding NEJAC concern, and the NEJAC submitted a letter to EPA in 2019 about the role and potential of environmental justice analyses in the NEPA process.

Millie Piazza said the workgroup met regularly with EPA to understand the current training catalog, and Lauren Hopkins went through the current catalog of training through the lens of best practice

on learning and curriculum design. Millie Piazza said they considered Ben Pauli's suggestion to take a tiered approach to workgroup participation, so they conducted one-on-one interviews with workgroup members and other contributors. She said the recommendations were built from those interviews.

Millie Piazza said they have 53 draft recommendations (which the NEJAC had received prior to the public meeting for review). She noted that she is a NEPA reviewer and has not received any training.

Millie Piazza said charge question one is about approaches to intermediate/advanced environmental justice training for reviewers. The workgroup's recommendations for internal staff training address format and frequency, transparency and accountability, and knowledge sharing and integrated approaches. She said that recommendations address issues of representation and lived expertise in NEPA reviewer hiring and training, and training of bias, cultural humility, power, and privilege.

Millie Piazza said charge question two is about improving the reviewers understanding of impacts experienced by communities. These recommendations concern data reliability, consistency, & accessibility; community representation; and holistic training. She emphasized that community voices are key to rounding out data that are largely based on census tracts. She said they made a recommendation about trauma-informed analysis, which accounts for multigenerational community trauma from government and development processes.

Millie Piazza said charge question 3 is about ensuring the potential environmental and health burdens of communities are fully analyzed. Recommendations concern public accountability and transparent assessments. She said that woven through the report is the recommendation to make the process and documents accessible to communities, particularly those potentially affected by the proposals, which includes plain language, alternative formats, and so on.

Regarding external training, Millie Piazza said the first charge question is on approaches and strategies for training communities. Recommendations here were grouped under Respectful Engagement; and Integrated Approach. Specific recommendations included compensating communities for their involvement and expertise.

Millie Piazza said that charge question two for external training is on training to reduce adverse impacts to communities. Recommendations here are about comprehensive NEPA review; community engagement; and remedies & support. She said it is crucial for communities to understand the purpose, scope, and key provisions in NEPA, and the role of environmental equity and justice and ensuring communities know their rights.

Regarding external training charge question 3, on determining the effectiveness of training, Millie Piazza said it's about having assessments and audits, community feedback from the affected population, independent reviewers again, and then cross agency collaboration and processes.

Millie Piazza said the recommendations are not exhaustive or comprehensive, but they are actionable.

Aya Nagano said that Congress must act to give NEPA teeth. She said there are profound consequences to the environment and communities from NEPA decisions, which affect the well-being and resilience of communities today and for generations. She thanked workgroup members and other contributors.

David Magdangal said he was blown away by the draft of the recommendations. He said it's going to create a ripple effect in EPA reviewers. He thanked everyone for their hard work.

Jill Harrison said she looks forward to hearing EPA's thoughts about the recommendations and how the recommendations will be integrated into agency practices, especially on how to interpret EPA's authority to conduct robust NEPA reviews.

Andi Kricun said this work is critical for the long game and that compliance is the floor not the ceiling of what is possible.

Sylvia Orduño asked members if there were any substantive concerns to be expressed before a vote.

Sophia Owen said she appreciated how the workgroup got its work done. She said the NEJAC should keep its eye on whether there may need to be follow up recommendations.

Cemelli De Aztlan said that her community, the only free port on the border, is being exploited via NEPA. She said during the NEPA assessment there was a walking tour, and the NEPA assessor knew nothing of the community—not even the language. When the community showed the assessor the people and animals with cancer, the assessor asked how the trucking industry in Mexico going to feel if you take them off the port of entry.

Millie Piazza supported Andy Kricun's comment that NEPA is not the beginning and end of environmental justice, and iterated his suggestion that we need a pathway to escalate and think strategically.

Na'Taki Osborne Jelks said that community members may not have academic credentials, but they are the experts of their experiences and of the toxic realities they live in every day.

Jerome Shabazz said issues keep arising related to the fact that people do not see themselves in the work; the work should be clear about why people should care. He recommended reframing, not just providing a list of recommendations.

Millie Piazza said it's already organized in two parts, so perhaps formatting can be changed.

Brenda Torres Barreto asked if it could be elevated to the WHEJAC for them to consider it and so they know their concerns are being addressed. Millie Piazza said it would be added to recommendations.

Jan Marie Fritz said she hopes that the report can be accepted with the small changes. She said the NEJAC needs to know about the history of NEPA complaints and appeals, as well as the response

from EPA. She also suggested that they put their request to hear EPA’s response to the recommendations in writing, as well as to get comments on the process shared at a public meeting.

Paula Flores-Gregg noted that EPA will be providing updates on recommendations made by the NEJAC at the next public meeting.

Sylvia Orduño asked if there are objections beyond the small adjustments just suggested. There were none. She asked if there is consensus. Sylvia Orduño observed consensus to move recommendations forward.

NEJAC Water Infrastructure Technical Assistance Workgroup Recommendations Presentation

Na'Taki Osborne Jelks said that water is a human right. She said the workgroup discussed whether EPA would turn a deaf ear if they lead with that framework, but they forged ahead. She said the workgroup reviewed NEJAC’s 2018 report [*EPA’s Role in Addressing the Urgent Water Infrastructure Needs of EJ Communities*](#), and she listed the eight overarching recommendations in that report.

Na'Taki Osborne Jelks said the charge was long, and included the following requests:

provide recommendations for informing and strengthening technical assistance efforts of the Office of Environmental Justice and External Civil Rights and the Office of Water to ensure communities with environmental justice concerns can obtain technical assistance at all levels, particularly for community water systems, decentralized systems, including rural communities on wells and septic, and/or nonexistent infrastructure to address their priority environmental, public health, affordability, and climate resiliency needs and reduce longstanding and cumulative negative health impacts.

Na'Taki Osborne Jelks said community water challenges include contaminated drinking water, unaffordable water resulting in service shutoffs, lack of democratic water governance, inadequate stormwater management systems, urban flooding and disproportionate water-related impacts of climate change, old and polluting wastewater infrastructure, and nonexistent water and sanitation access and services in small towns, rural areas, and villages, among other challenges.

Na'Taki Osborne Jelks said that although historic amounts of funding are available to EPA now, the NEJAC has heard over the course of this meeting about extensive water challenges and dire needs of communities that they should not be facing in 2023. She said that starting where we can with the resources, we have will make a difference. She said NEJAC expressed some concerns and iterated the eight recommendations from NEJAC’s 2018 report (as well as some new ones) in a 100 Day letter, and they received a response. She said that, despite some earlier failings, some progress has been made. She thanked staff from the Office of Water for regularly attending meetings.

Na'Taki Osborne Jelks shared three caveats about the recommendations. First, she said, they understand that EPA has already started to implement some of the recommendations; second, environmental justice communities are still greatly at risk; and third, where EPA is limited in its authority to act, it should be creative in delivering on the intent of the recommendations—including

driving and leading engagement with other federal agencies that may also have some shared responsibility.

Ben Pauli explained that his part of the presentation applies to both municipal and rural utilities. He noted several challenges facing municipal utilities serving environmental justice communities, including that they often oversee aging, dilapidated infrastructure; have difficulty hiring and retaining qualified staff; can't afford to finance projects despite charging high rates; are challenged with long-term operations and maintenance, even when projects are funded; and have hostile relationships with communities, among others.

Ben Pauli said the workgroup made about 80 recommendations (including sub-recommendations). He said a major recommendation is for EPA to help municipal utilities identify needs and solutions, design projects, and secure financing. Strategies include helping communities conduct vulnerability assessments to establish priorities for action and investment and to ensure community members are engaged in assessing needs and developing solutions.

Ben Pauli said the workgroup also recommends clearly defining “disadvantaged” and “underserved” communities and to proactively reach out to those utilities to inform them of TA opportunities. Further, the workgroup proposed establishing a comprehensive TA website. The workgroup further recommends that TA providers contract with community engagement experts and that EFCs have community team members or advisory boards, and to provide resources for community members and groups who want to work more effectively with utilities. They recommended an accountability hotline or designated contact that the community can reach to voice concerns. The final overarching recommendation is to implement a permanent National Low-Income Household Water Assistance Program so that water utilities can provide full cost services to environmental justice communities.

Jacqueline Shirley said that they created the presentation before the public meeting, before hearing public comments or engaging with others. She said they did not ask Puerto Rico, U.S. Virgin Islands, Guam, or others for input into these recommendations. She said U.S. territories is another stakeholder category that EPA may want to consider adding. She acknowledged that they missed a lot.

Regarding the rural context, Jacqueline Shirley said rural communities are diverse. They require TA, training, access to funding streams, and a voice at the table. She said urban communities have a voice because they have money. She said that rural TA providers need flexibility to better support rural areas. And she said that EPA must engage with rural communities as partners, not just regulators.

Jacqueline Shirley said her workgroup's first recommendation is that EPA proactively convey funding and TA opportunities to communities most in need. Next, she said that EPA must hold accountable those who pollute public and private wells, for example, by polluting surface water. She said EPA should also think creatively when replacing or repairing infrastructure and consider resiliency against emerging contaminants. Finally, she shared the recommendation that EPA needs to rebuild trust with the rural communities they serve and regulate. And this must be done at the speed of the community, not the speed of EPA.

Jacqueline Shirley said this is a continuous journey that is demanded to ensure all people everywhere have access to safe, affordable drinking water. She said their report does not address all the complex challenges faced by rural communities and emphasized that rural communities deserve attention to their needs despite the extra effort it may require.

Jacqueline Shirley emphasized that rural communities are diverse and shared photos of her village. She said water pipes are located above ground because permafrost prevents burying them; however, the permafrost is now melting, and the infrastructure is shifting.

Scott Clow said that tribal systems have the same challenges as rural systems plus some additional ones. He said EPA and other federal agencies have a Trust Responsibility, which is another level of responsibility that the U.S. government owes tribes because of past actions that displaced and relocated native peoples. Tribes bear extra administrative burdens that result from dealing with all these federal agencies; he said Alaska Native Villages have yet another level of challenge. He said a lot of funding is a one-time deal that may help communities build a system but not operate or maintain it. Some tribal water systems do not charge households for water. With no funding for operation and maintenance, he said, we must build community capacity to do so.

Aya Nagano emphasized the importance of workforce development in water infrastructure work. She said recommendations in this area include creating an environmental justice-focused workforce think tank within the Department of Labor, the Department of Energy, and so on to work toward a whole-of-government approach to promoting workforce development in the water sector. Given the lack of support that small utilities experience, the workgroup recommends ensuring that environmental justice communities are served by utilities with sufficient staffing, experience, and resources. She said the workgroup also recommends training people to replace lead service lines, which will also help address an upcoming workforce shortage. The group recommended that green jobs have a shorter training period and are more accessible to environmental justice community members. She said water workforce credentials need to be portable from state to state and noted the need for more people trained in project management skills. She said water workforce development could be embedded into SRF-eligible projects. Lastly, Aya Nagano shared the recommendation that a suggested \$25,000 per-person budget for each trainee would be cost effective.

Aya Nagano noted that solutions need to be multifaceted because communities are diverse. She said that mid-sized utilities are often left without resources or support, which smaller and larger utilities have. She said that tribes face unique challenges. She shared recommendations for internships/externships, pre-employment training and certification, JEDI hiring practices that target environmental justice communities, and advanced opportunities for career development.

Aya Nagano said that recommendations for EFCs and TCTACs include requiring outside contractors to train locals and learn on the job, to devote 15 percent of construction costs to environmental justice members or businesses, include a community benefit project of at least \$500,000 so locals can grow capacity, and create a community-based construction cooperative to build place-specific institutional knowledge. She said the workgroup also recommended wrap-around services, such as childcare, housing, transportation, and other services.

Andy Kricun said that, in addition to answering the charge question, the workgroup thought about the potential for new NEJAC charges, as water is at the heart of a lot of environmental justice challenges. Ideas included the following:

- Combined Sewage Overflow (CSO) Mitigation in EJ Communities
- Source Water Protection/Well Water Contamination
- Tribal Water Challenges
- EPA Water and Environmental Justice Performance Scorecard
- Industrial wastewater pre-treatment
- Drinking water quality/chemicals and emerging contaminants of concern
- PFAS/Lead/Fluoride/Chromium VI and Others
- Potential consolidation/regionalization of community water systems alongside specific protections for communities against predatory practices
- Addressing climate change impacts on water infrastructure

Andy Kricun iterated the value of a safety net for low-income households and said it would also free up water utilities to close the infrastructure gap because they could charge proper rates without worrying about harming low-income households. He said there is an energy assistance program, and there could be one for water, as well.

Yvonka Hall said Cleveland, Ohio, has a safety net program in place for seniors called Homestead Exemption, and she recommended the workgroup look at that.

Jeremy Orr said the process of having experts speak to the workgroup was helpful, as was the opportunity to invite non-NEJAC members onto subcommittees.

Loren Hopkins said that they can't keep people in their water program although it's a great career path. She said giving people skills and experience through internships is a good recommendation, but it may not work well in practice. She said that universities may get a grant to train interns, but to have a good experience, interns need mentoring. People doing the work need to be fully funded to do it right; a bored intern will be turned off. She said the utility hosting the interns need a paid FTE to manage the program.

Jerome Shabazz said that there has been no community messaging about expected water workforce shortages. He said not just governments, but NGOs could write curricula.

Nina McCoy said that water and sewer jobs are crucial to community resilience and developing interest in these jobs needs to start in middle school.

Sylvia Orduño said that, in the past, the NEJAC was perhaps too timid, but now is the time to be using language such as "must" rather than "should" with EPA because it conveys the urgency of the moment. She also said that the problem of affordability is not solved by safety net programs, which are a form of assistance.

Jonathan Nelson, Senior Advisor, Office of Water, thanked the workgroup for recommendations that will be useful to the entire Agency. He said the NEJAC's values are clear that every person in

the country deserves safe, clean, affordable water. He said that how they go about the work is as important as the work itself. He said progress happens at the speed of trust. He added that they see TA as an opportunity to make progress. He said EPA is committed to rolling up its sleeves and working hard with the NEJAC.

Jennifer McLain said that although some of the recommendations are underway, EPA is looking to build on them and improve them. Staff are assigned to focus on improving drinking water through TA programs, and it is becoming embedded into the structure of the organization. She acknowledged the need to think creatively about some of the large challenges, such as O&M. She said partnering across the federal government to increase access to clean water is also happening.

Na'Taki Osborne Jelks thanked everyone and let the EPA know the NEJAC is asking for updates by the December meeting.

Sylvia Orduño asked EPA about their thoughts on the potential new charges. Jonathan Nelson said all are important, and they need to think about where the opportunities are at this historical moment.

Jennifer McLain suggested digging into the details of the challenges and bringing examples to EPA. Andy Kricun said that could be done.

Sylvia Orduño said that, based on the positive responses to the presentation, she heard consensus about submitting the report to EPA. There were no objections.

NEJAC Business Meeting

Sylvia Orduño invited discussion on the grant opportunities presented the day before by Bruce Binder and Alexandra Gallo.

Alexandra Gallo said they would answer questions regarding their presentation on how EPA has integrated feedback from the workgroup. Bruce Binder said they would also address questions on the grant processes in general.

Sophia Owen asked about the status of the TCTAC for Region 1. Matthew Tejada said that sometimes between selecting an entity and making the award, events occur that make awarding the grant not feasible. He said they have accelerated the process for getting a TCTAC for Region 1.

Na'Taki Osborne Jelks asked if there is a minimum amount of funding, and she also asked whether EPA had clarified that CBOs would be the primary eligible organizations and whether CBOs would have to be the lead applicant. She also asked if EPA would be running the process, and, if so, what EPA is doing to ensure funding gets directly to those who need it. Bruce Binder said that there are some details they can't share in advance of the NOFO, but he said they are taking steps, such as implementing a rolling application period, reviewing applications as they are submitted, and implementing an oral presentation option.

In response to Na'Taki Osborne Jelks' question about funding, Alexandra Gallo said they are still working through some elements. She said the community change grants are intended for community infrastructure and projects in the \$10–\$20 million range. She said they are working on a

smaller grant category that will be in the lower millions of dollars. She said they are interviewing state and nonprofit entities to learn more about realistic costs.

Regarding the question of eligible entities, Alexandra Gallo replied that academic institutions and local governments are eligible to receive awards directly if they partner with a CBO. She said EPA is looking into how they could support caps on indirect cost rates, but this challenge hasn't been resolved yet. She said they are not at liberty to dictate indirect cost rates, but they can look at cost effectiveness. Matthew Tejada added that EPA is looking at how to ensure relationships with lead and partner organizations are authentic and community driven.

Na'Taki Osborne Jelks pointed out that often communities are tasked with community organizing, and lead institutions often do not understand how time intensive it is to engage communities authentically.

Jacqueline Shirley asked about the timeline for the Grantmakers Program. She also asked if EPA plans to cluster funding centers around the EFCs or to spread them out more. Bruce Binder said they are currently evaluating Grant Maker program proposals and those awards will be made by the end of the calendar year. Matthew Tejada clarified that TCTACs have a very straightforward TA mission that EPA does not want to dilute.

April Baptiste asked if at any point the budget will be examined for equity and fairness among partners, so that CBOs get their due. Bruce Binder said that, unlike with contracts, EPA can't have negotiations and discussions that illuminate budget details. However, after a selection is made there can be work plan negotiations. April Baptiste asked whether, in terms of TA specific to the IRA, would individuals and partnerships apply for TA at that time. Bruce Binder replied that the NOFO will have clauses and information on how applicants can get TA to prepare the application. Alex Gallo added that EPA will have transparent scoring, which will include budgets. She said oral presentations are an opportunity for applicants to clarify intentions behind their budgets. EPA will give feedback to unsuccessful applicants and give them another opportunity to apply.

Pamela Talley asked for clarification about using grants for seed funding. Bruce Binder said the grants have to be used within three years, so he wouldn't characterize this funding as seed funding. Jerome Shabazz clarified that the recommendation was for organizational capacity building, including indirect costs for activities that organizations need to fund to do their work, including stipends. Matthew Tejada said EPA is mapping potential assets and assistance now. Bruce Binder clarified that the TA component was deliberately written to be very broad in scope. Jerome Shabazz said that the NOFO should be very clear up front on what applicants have to do to comply with regulations. Bruce Binder said that the NOFO won't be perfect, but the 12-month window gives EPA time to revise the NOFO if applicants point out things they missed.

Sylvia Orduño asked if resilience hubs have been incorporated. Alexandra Gallo said that the concept has been incorporated into the framework. She said EPA is still researching the potential costs and implementation timeline. Bruce Binder said the NOFO will list examples of projects, but it will not be exhaustive, so applicants will be able to propose ideas that aren't in the NOFO.

Sophia Owen said that her experience is that when small organizations are approached by larger ones, the smaller organizations are offered a very small share of the grant in exchange for a lot of work. She also raised the issue of compensation, which is tricky for organizations that work with undocumented immigrants. Bruce Binder said EPA is trying to balance issues that affect stipends. Matthew Tejada said that they do not want to disqualify organizations that have been established specifically to administer funds and provide other capacity for communities that do not have the resources to do so on their own because then those communities won't be served. Richard Mabion said that that is indeed the situation of his community.

Sylvia Orduño opened the business meeting.

NEJAC Farmworkers & Pesticides Workgroup

Sylvia Orduño reminded members that the workgroup's charge was approved at the March 2023 meeting, and Amanda Hauff has been helping the workgroup navigate the regulatory environment pertaining to the charge questions. She said the workgroup meets every Tuesday, and they alternate the questions they work on. They bring in outside experts, such as farmworkers, as they try to balance the technical and human aspects of the issues. She noted that many of the issues are outside EPA's purview, and they will need to engage the WHEJAC on this matter.

Jill Lindsey Harrison shared the first set of charge questions, which pertains to the federal government providing a portion of the pesticide label in Spanish. She said these labels are long and technical, and they have historically been provided in English only. Now, some of that information must be provided in Spanish. In addition, there are requirements for disseminating this information to Spanish-speaking farmworkers, and EPA asked for feedback on approaches, strategies, technologies, and mechanisms for doing so. She noted challenges such as lack of, or uneven access to the internet, poverty, and risks for asking for this information from employers, particularly because of immigration status.

Jill Lindsey Harrison then gave background on the third set of charge questions, which concern how EPA can more effectively account for the presence of children in agricultural settings and how that might affect EPA's assessment of risks. Risks include not only the pesticides that children are exposed to in the fields but risks that may make them more vulnerable to harm from exposure, such as poverty and low access to healthy foods, clean drinking water, and so on.

Yvonka Hall said the workgroup's second set of charge questions is on creating a new farmworker indicator. These questions concern the types of indicators that would be meaningful to farmworkers; the environmental and health issues most urgent to farmworkers that can be tracked and analyzed for disparities; datasets that would be useful and recommendations on using currently available datasets; and the critical issue of determining the reference point from which to measure disparity.

Yvonka Hall said the important piece for her is the discussions with farmworkers, and the workgroup turns to farmworkers to learn about the indicators they feel are needed to change health disparities. She said the workgroup has included interviews and written assessments from scientific and community organizations.

Yvonka Hall said the workgroup’s research on farmworkers revealed that the average age is 38, more than 80 percent identify as Latino/Hispanic, annual incomes are approximately \$17,500 to \$20,000, and educational attainment is 8th grade.

She said conversations with farmworkers centered on a range of concerns, including demographics but also including where they worked, health concerns, legal protections, disabilities, social determinants of health, and many other issues, including polluted soil, the presence of lead, and other environmental conditions. She said the workgroup wants to fully address the needs of farmworkers, and to do so, they need to ensure that agencies are working together in a culturally proficient way.

Yvonka Hall said the fourth set of charge questions is on training inspectors to conduct worker protection standard inspections, and the workgroup has yet to start discussing that topic.

Amanda Hauff thanked NEJAC members and said that EPA is looking at all perspectives, including the Office of Chemical Safety and Pollution Prevention; Office of Enforcement, Compliance, and Assurance; Office of Research Development; Office of Children's Health Protection, and the regions.

Sylvia Orduño said that the workgroup has a heavy lift but a deep experience. She said the workgroup needs more capacity, such as figuring out some legal aspects of the issue.

Andy Kricun asked if it were possible to do a state-by-state gap analysis of regulations protecting farmworkers and to close gaps, where possible. He also suggested looking at the Clean Water Act to address some pollution issues, such as pesticide run-off polluting drinking water.

Jan Marie Fritz urged EPA to do its part to promote the issue across federal agencies.

Na'Taki Osborne Jelks iterated the need for cross-agency collaboration; several agencies have to be involved to address the issues.

Amanda Hauff said EPA is aware that they need a more holistic strategy, and senior leadership is committed to finding a way.

NEJAC Cumulative Impacts Workgroup

Sandra Whitehead said that the workgroup has been meeting since March to reach agreement on areas for recommendations and establishing their approach to working on the charge questions. She said they intend to develop recommendations into December of this year, and then to finalize them in the first quarter of 2024.

The charge questions are:

1. What can we learn from recent developments in cumulative impacts assessment at the state and local level?
2. What approaches can EPA adopt for assessing and addressing cumulative impacts?
3. What advice does the working group have for finalizing and implementing a cumulative impacts framework?

Sandra Whitehead said that the workgroup has looked into definitions of cumulative impacts, state and local experiences with cumulative impacts, EPA’s Cumulative Impacts Addendum, as well as green zones and comprehensive community approaches. She said the workgroup also came to an agreement of how to approach the charge questions, which involves forming smaller subcommittees to explore the charges. She said they spoke with Robin Collin about her vision for the work and for transforming the agency and used the time in Puerto Rico to build cohesion and have in-depth discussions.

Sandra Whitehead shared the workgroup’s areas for recommendations.

Recent experience

1. Consideration of disproportionate impacts and importance of equity mandate for actionable cumulative impacts analysis, particularly in the permitting space, particularly the experience of New Jersey.
2. Definition of cumulative impacts, including definitions that communities can relate to.
3. Green Zones (Community driven, comprehensive, place-based approaches to address cumulative impacts and achieve community health, sustainability and resilience).

Assessment approaches and methods

4. Mechanisms to incorporate community knowledge and lived experience into decision making, centering community voices.
5. Considering and incorporating historical and structural drivers of concentrated environmental burden, especially the legacy of racism.
6. Considering and incorporating climate justice.
7. What are the basic requirements of a cumulative impact assessment.

Operationalizing and Integrating Cumulative Impacts Assessment and Action

8. Ensuring that EPA’s cumulative impacts work reflects needs, perspectives, experiences, and priorities of EJ communities.
9. Accelerating implementation of EPA’s cumulative impacts work.
10. Ways to promote collaboration and co-generation of knowledge and expertise *with* communities.
11. Innovative ideas, particularly but not limited to the Total Maximum Daily Load (TMDL) concept.

Sandra Whitehead iterated the workgroup’s intention to have draft recommendations prepared for the next public meeting and then to have the recommendations finalized by March 2024.

Na'Taki Osborne Jelks said that we spend a lot of time looking at what is burdening our communities, and we may want to look at community assets that can be invested in to move from overburdened to thriving communities. Sandra Whitehead agreed and said that, although she didn’t

address it in her remarks, the framework starts with what is good in the community and emphasizing the assets.

Sophia Owen said that she has heard that cumulative impacts assessments may stop benefits from coming to communities or that by addressing issues, they will stop the transition to clean and green infrastructure. She suggested adding a point that the approach is not merely procedural but that it's necessary to redress past harm and to ensure that the future is just.

Jacqueline Shirley said it's a massive issue and she asked about the mission of the framework. Charles Lee said that the goal of the cumulative impacts framework is to operationalize it. He said there will be a lot of learning along the way because cumulative impact is complex and nuanced. He said it's going to be an organic process in which they learn and do together.

Jerome Shabazz recalled remarks from Robin Collin and said that cumulative impact work should be the platform for action. Sandra Whitehead agreed and said this is not an academic exercise.

Charles Lee iterated that the area of cumulative impacts is just emerging, and the concepts are not all clearly articulated. So the NEJAC is in a position to lay some foundational concepts.

Potential Charges

Sylvia Orduño turned the discussion to potential new charges. She said the group did not have to prioritize or make decisions today, but she asked them to consider the following:

- Title VI and external civil rights
- Disability justice
- Border issues
- National Ambient Air Quality Standards
- Climate education/climate issues
- NEJAC/WHEJAC coordination
- Lead exposure/lead poisoning
- Environmental education for youth
- Equivalent environmental enforcement across regions and states
- Legal support for EJ communities to address contaminated sites
- Opportunities for partnerships with other federal agencies
- Industrial pretreatment programs (continuation of Water Infrastructure)
- Action team to address issues raised in public comments
- Regional NEJACs
- Job training and workforce development
- Cryptocurrency mining and excessive energy use
- Relevance of 1984 Indian Policy to EJ today and follow up
- Issues faced by tribes located along US borders
- Need to acknowledge unrecognized tribes
- Lack of proper review in NEPA process
- Ensuring workgroups cover “people, processes, and systems”
- Explore limits of mapping tools and data used to represent and identify communities

- Centering human health in all of what EPA does
- Accountability around where the money goes—a plan for this

Andy Kricun noted that water affordability should also be on the list.

Sophia Owen asked to make time at a future meeting to discuss how work could be done in workgroups to make it a better experience. She also said that some of the items mentioned could be grouped. Finally, she asked to hear more from EPA on disability justice.

Matthew Tejada said their goal is to continually professionalize the working groups. He said EPA headquarters staff are discussing the disability question now. He said they are currently open-ended and NEJAC could have a lot of say on the matter.

Richard Mabion asked about the timeframe on these potential charges. Matthew Tejada said they are considering having a public meeting in the fall and then NEJAC members can discuss this more at the next meeting.

Ben Pauli said he would like to see the NEJAC tackle accountability, particularly the issue that EPA is pushing a lot of money out for research and projects that are supposed to be happening in collaboration with communities. But, he said, there is a lack of recourse for communities when things go wrong, or they have a complaint. He said it is important to remember that distributing money in this way is also distributing power, giving funded entities power over the communities. He said applicants know they have to include language about community partnerships into their grants, but EPA must ensure it is done right. He said that the NEJAC had suggested EPA create a role whose job it is to take complaints from communities, and there needs to be oversight.

Matthew Tejada said it would have been better to have accountability systems in place before any of this happened, but now is also a good time. He said he'll find a way to fill in the intent of some of these potential charges before the next meeting.

Jacqueline Shirley said that she does not know what is meant by “unrecognized tribes.” She said a policy is already in place. She said perhaps there should be a review and update of the environmental justice policy for federally recognized tribes and Indigenous people.

Na'Taki Osborne Jelks supported Ben Pauli's remarks and added that EPA could invest more substantively in participatory science. Communities want to know if their findings will be used in any relevant way by the Agency. She added that the list that is sent out will include water issues, such as mitigation around combined sewer overflows.

Mike Tilchin said that because some of the issues NEJAC works on take years or decades to bear fruit, he would like some charges that the NEJAC can see will make a difference in the short term.

Brenda Torres Barreto said she would like to see island territories on the list. She said that even stable areas lack infrastructure, and those without economic resources are exposed to pollutants. She said it's also important to have WHEJAC input at some of these meetings.

Sylvia Orduño said that she heard in the presentations a call to for giving specific attention to the isolation of Caribbean communities and what they experience. She said the NEJAC itself has equity issues in how work is distributed. She said it would be helpful to have written guidance on orientation for new members as well as on process. Regarding the use of contractual support, she said that notetaking is interpretation, and the NEJAC needs to vet the concepts and interpretations captured by notetakers.

Lauren Hopkins asked how NEJAC members will have a chance to explain their suggested charges or present the charges for consideration. Paula Flores-Greg said that they will have detailed notes and can facilitate a discussion.

Aya Nagano said that, regarding the legal resources for contaminated sites, she wanted to speak with other attorneys on the NEJAC about creating a set of referral sources for associations and clinics at law schools, nonprofits, and so on.

Matthew Tejada said EPA will get a facilitator and have another conversation about this in the fall.

Closing Remarks

Na'Taki Osborne Jelks said she is energized about what the NEJAC has been able to do this week. She said the NEJAC can celebrate the NEPA training report, the Water Infrastructure TA report, and updates from the Cumulative Impacts Workgroup. She said that tremendous work has occurred, and there is a lot of work ahead, and she is looking forward to what this body will achieve in the future.

Mike Tilchin congratulated the NEPA and Water Infrastructure workgroups for their significant achievements. He also acknowledged the progress of the Farmworkers and Pesticides workgroup and Cumulative Impacts workgroup.

Sylvia Orduño said that Matthew Tejada has brought together a great team and new staff, and the support they offer is making a difference. She said it has been an honor to work with and help lead the NEJAC, and she is counting on everyone to keep persevering and to keep the movement in mind as they do the work. She said she will keep looking at what they all are doing and rooting them on.

Matthew Tejada thanked those in Puerto Rico and the U.S. Virgin Islands and EPA Region 2 staff for welcoming them all to the island and doing a tremendous job.

Paula Flores-Gregg thanked the EPA support team and the team of contractors, and she adjourned the meeting.

Appendix A. NEJAC Members

Cemelli De Aztlan | La Mujer Obrera, Region 6

April Karen Baptiste | Colgate University, Region 2

Joy Britt | Knik Tribe, Region 10

Rev. Ambrose Carroll, Sr., PhD | Green The Church, Region 9

Scott Clow | Ute Mountain Ute Tribe, Region 8

Leticia Colon de Mejias | Green ECO Warriors, Region 1

John Doyle | Little Big Horn College, Region 8

Jan Marie Fritz, PhD, C.C.S. | University of Cincinnati, Region 4

Yvonka M. Hall | Northeast Ohio Black Health Coalition, Region 5

Loren Hopkins, PhD | City of Houston Health Department, Region 6

Andy Kricun | Moonshot Missions, Region 3

Jill Lindsey Harrison, PhD | University of Colorado Boulder, Region 8

Richard Mabion | Building A Sustainable Earth Community, Region 7

Nina McCoy | Martin County Concerned Citizens, Region 4

Ayako Nagano, JD | Common Vision, Region 9

Sylvia Orduño | Michigan Welfare Rights Organization, Region 5

Jeremy F. Orr, JD | Earthjustice, Region 5

Na'Taki Osborne Jelks, PhD | West Atlanta Watershed Alliance/Proctor Creek, Region 4

Sofia Owen, JD | Alternatives for Community & Environment, Region 1

Benjamin J. Pauli, PhD | Kettering University, Region 5

Jonathan Perry | Becenti Chapter, Region 6

Millicent Piazza, PhD | WA Department of Ecology, Region 10

Jerome Shabazz | JASTECH Development Services Inc. and Overbrook Environmental Education Center, Region 3

Jacqueline Shirley, MPH | Rural Community Assistance Corporation. Region 6

Pamela Talley, PhD | Lewis Place Historical Preservation, Inc., Region 7

Michael Tilchin | Jacobs Engineering, Region 3

Brenda Torres Barreto | San Juan Bay Estuary Program, Region 2

Sandra Whitehead, PhD | George Washington University, Region 3

Appendix B. Presentations



Welcome

- **Matthew Tejada**, Deputy Assistant Administrator for Environmental Justice, Office of Environmental Justice and External Civil Rights – U.S. EPA
- **Sylvia Orduño**, NEJAC Co-Chair – Michigan Welfare Rights Organization
- **Dr. Na'Taki Osborne Jelks**, NEJAC Co-Chair – West Atlanta Watershed Alliance and Proctor Creek Stewardship Council
- **Michael Tilchin**, NEJAC Vice Chair – Jacobs Engineering



National Environmental Justice Advisory Council







PUBLIC MEETING

San Juan, Puerto Rico

July 25 – 27, 2023


REMINDERS

-  Meeting attendees are in listen/view mode only
-  The chat feature will not be available in this virtual meeting
-  Attendees who pre-registered for public comment will be given access to speak as time allows
-  If you do not get a chance to speak during the allotted time, please submit your comments in writing

Written comments can be submitted until; August 9, 2023, to nejac@epa.gov

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<h2 style="margin: 0;">AGENDA HIGHLIGHTS</h2> <p style="margin: 0;">Tuesday, July 25</p> <p style="margin: 0;">2:00 PM – 4:00 PM EASTERN</p>	
2:00 PM – 2:05 PM	Open Public Meeting
2:05 PM – 2:15 PM	Welcome
2:15 PM – 2:30 PM	NEJAC Member Introductions
2:30 PM – 3:00 PM	Opening Remarks
3:00 PM – 3:30 PM	Greenhouse Gas Reduction Fund Implementation Framework
3:30 PM – 4:00 PM	Special NEJAC Recognition
4:00 PM	Adjourn








NEJAC Member Introductions

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NEJAC MEMBERS

ACADEMIA

	<p>April Karen Baptiste, PhD Colgate University Region 2 - New York</p>		<p>Benjamin Pauli, PhD Kettering University Region 5 - Michigan</p>
	<p>Jan Marie Fritz, PhD, C.C.S University of Cincinnati Region 4 - Florida</p>		<p>Sandra Whitehead, PhD, George Washington University Region 3 - District of Columbia</p>
	<p>Jill Lindsey Harrison, PhD University of Colorado Boulder Region 8 - Colorado</p>		

NEJAC MEMBERS

BUSINESS & INDUSTRY



VICE-CHAIR OF NEJAC

Michael Tilchin
Jacobs Engineering
Region 3 - Maryland

NEJAC MEMBERS

COMMUNITY BASED ORGANIZATIONS



Rev. Ambrose Carroll, Sr., PhD
Green The Church
Region 9 - California



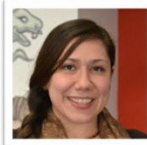
Pamela Talley, PhD
Lewis Place Historical Preservation Inc.
Region 7 - Missouri



Leticia Colon de Mejias
Green ECO Warriors
Region 1 - Connecticut



Jerome Shabazz
JASTECH Development Services Inc
Region 3 - Pennsylvania



Cemelli De Aztlan
La Mujer Obrera
Region 6 - Texas



Sofia Owen, JD
Alternatives for Community &
Environment (ACE)
Region 1 - Massachusetts

NEJAC MEMBERS

COMMUNITY BASED ORGANIZATIONS (continued)



Yvonka M. Hall
Northeast Ohio Black Health
Coalition
Region 5 - Ohio



Nina McCoy
Martin County Concerned
Citizens
Region 4 - Kentucky



Richard Mabion
Building A Sustainable Earth
Community
Region 7 - Kansas



CO-CHAIR OF NEJAC

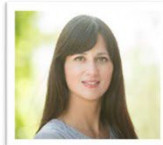
Na'Taki Osborne Jelks, PhD
West Atlanta Watershed
Alliance and Proctor Creek
Stewardship Council
Region 4 - Georgia

NEJAC MEMBERS

NON-GOVERNMENT ORGANIZATIONS



Andy Kricun
Moonshot Missions
Region 2 - New Jersey



Brenda Torres Barreto
San Juan Bay Estuary Prog.
Region 2 - Puerto Rico



Jeremy F. Orr, JD
Earthjustice
Region 5 - Illinois



Ayako Nagano, JD
Common Vision
Region 9 - California



Jacqueline Shirley, MPH
Rural Community
Assistance Corporation
Region 6 - New Mexico



CO-CHAIR OF NEJAC

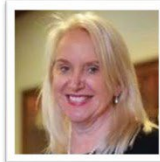
Sylvia Orduño
Michigan Welfare Rights Organization
Region 5 - Michigan

NEJAC MEMBERS

STATE & LOCAL GOVERNMENT



Millicent Piazza, PhD
Washington State Department of Ecology
Region 10 - Washington



Loren Hopkins, PhD
City of Houston Health
Department
Region 6 - Texas

NEJAC MEMBERS

TRIBAL & INDIGENOUS GOVERNMENT & ORGANIZATIONS



Joy Britt
Region 10 - Alaska



John Doyle
Little Big Horn College
Region 8 - Montana



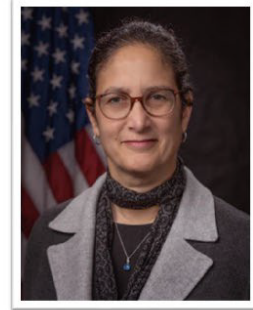
Scott Clow
Ute Mountain Ute Tribe
Region 8 - Colorado



Jonathan Perry
Becenti Chapter
Region 6 - New Mexico

Opening Remarks

Marianne Engelman-Lado,
Acting Principal Deputy
Assistant Administrator, Office
of Environmental Justice and
External Civil Rights, U.S. EPA



- EO 14091: *FURTHER ADVANCING RACIAL EQUITY AND SUPPORT FOR UNDERSERVED COMMUNITIES THROUGH THE FEDERAL GOVERNMENT*

- EO 14096: *REVITALIZING OUR NATION'S COMMITMENT TO ENVIRONMENTAL JUSTICE FOR ALL*

Marianne Engelman-Lado
NEJAC
July 25, 2023

CURRENT EPA EQUITY ACTION PLAN

The current plan outlines the following six priority actions:

- ▶ Develop cumulative impacts framework and operationalize in EPA's programs and activities
- ▶ Build capacity of underserved communities
- ▶ Develop EPA's internal capacity to engage underserved communities
- ▶ Strengthen EPA's external civil rights compliance program and ensure civil rights compliance is an agency-wide responsibility
- ▶ Integrate participatory (community) science into EPA's research and program implementation
- ▶ Make EPA's procurement and contracting more equitable

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- ▶ EO 14091 requires agencies to submit a new Equity Action Plan **September 2023**, and on an annual basis thereafter.
- ▶ The Equity Action Plan will include:
 - ▶ an update on the progress made by each agency on the actions, performance measures, and milestones highlighted in the last Equity Action Plan;
 - ▶ potential barriers that underserved communities may face in accessing and benefitting from the agency's policies, programs, and activities;
 - ▶ strategies, including new or revised policies and programs, to address identified barriers; and
 - ▶ a description of how the agency intends to meaningfully engage with underserved communities.

ANNUAL EPA EQUITY ACTION PLANS IN RESPONSE TO EXECUTIVE ORDER 14091

U.S. Environmental Protection Agency

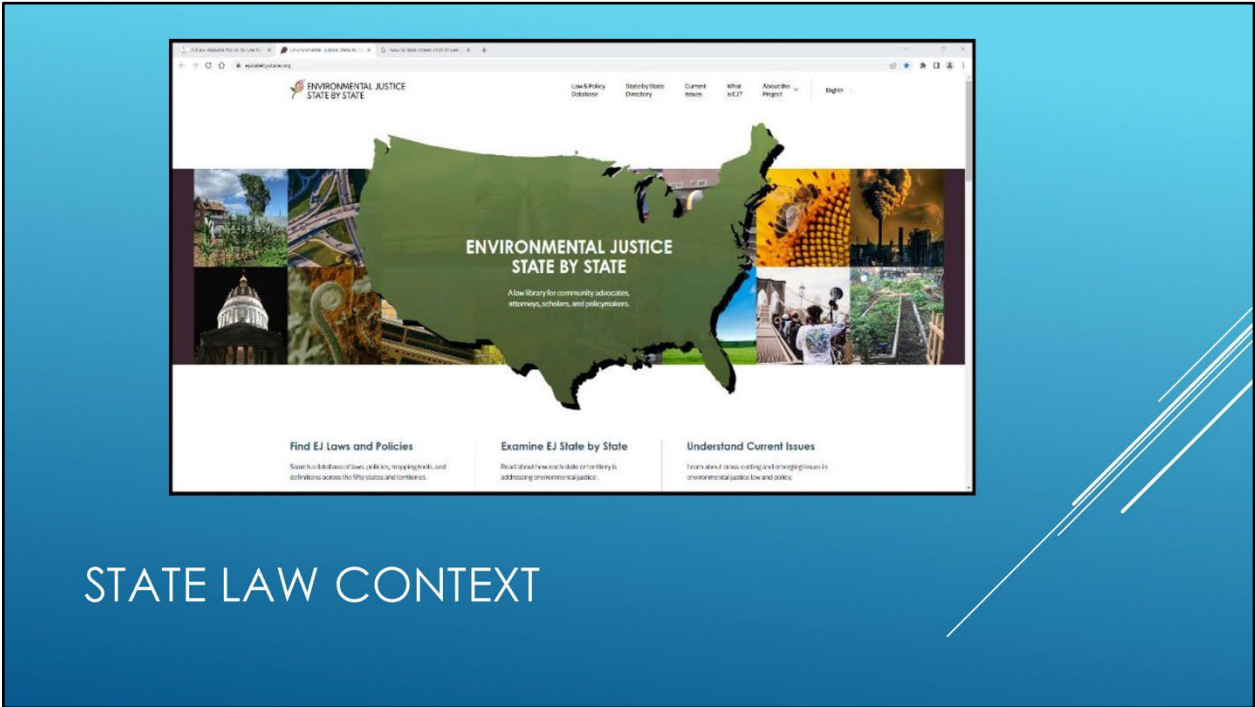
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- ▶ Significance of EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994)
- ▶ Values & Animating Concepts
 - ▶ Updating language & provisions
 - ▶ Recognition of role of civil rights law
 - ▶ Accountability
 - ▶ Need for an all-of-government approach

ANIMATING VALUES & IDEAS

- ▶ 14008, *Tackling the Climate Crisis at Home and Abroad* (2021)
 - ▶ Sec. 220: The IAC shall “submit to the President, through the National Climate Advisor, a set of recommendations for further updating Executive Order 12898”
 - ▶ Sec. 221: The WHEJAC shall provide recommendations to the IAC, “including recommendations for updating Executive Order 12898”
- ▶ WHEJAC Recommendations
- ▶ Environmental Justice Interagency Council Input

PROCESS



STATE LAW CONTEXT

- ▶ Colorado 2021a 1266: the general assembly finds that ...
- ▶ (I) All people have the right to breathe clean air, drink clean water, participate freely in decisions that affect their environments, live free of dangerous levels of toxic pollution, experience equal protection provided by environmental policies, and share the benefits of a prosperous and vibrant pollution-free economy;
- ▶ (II) **Certain communities, both in Colorado and internationally, have historically been forced to bear a disproportionate burden of adverse human health or environmental effects as documented in numerous studies,** including the "Toxic Wastes and Race at Twenty, 1987-2007" report by the United Church of Christ Justice & Witness Ministries, federal environmental protection agency annual Environmental Justice Progress Reports, and a 2021 report from the "Mapping for Environmental Justice" project at the Berkeley Public Policy/The Goldman School that shows how the pollution burden is distributed in Colorado, while also facing systemic exclusion from environmental decision-making processes and enjoying fewer environmental benefits;
- ▶ (III) **Specifically, communities with residents who are Black, Indigenous, Latino, or people of color have faced centuries of genocide, environmental racism, and predatory extraction practices;** and
- ▶ (IV) At the same time, environmental justice affects and requires the participation of all Coloradans;

STATE LAW CONTEXT (CONT.)

- ▶ “Communities with environmental justice concerns face entrenched disparities that are often the legacy of racial discrimination and segregation, redlining, exclusionary zoning and other discriminatory land use decisions or patterns....”

POLICY

- ▶ Agency – all agencies excluding GAO and independent regulatory agencies
- ▶ Federal activity – means any agency rulemaking, guidance, policy, program, practice or action that affects or has the potential to affect human health and the environment, including an agency action related to climate change. Federal activities may include agency actions related to ... permitting, and the reissuance of licenses and permits....

DEFINITIONS

- ▶ “Environmental Justice” means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability ... so that people
 - ▶ Are fully protected from disproportionate and adverse human health and environmental effects ..., including those related to climate change, the cumulative impacts of environmental and other burdens and the legacy of racism or other structural or systemic barriers...
 - ▶ Have equitable access to a healthy, sustainable, and resilient environment in which to live, play work, learn, grow, worship, and engage in cultural and subsistence practices

DEFINITIONS (CONT.)

- ▶ 15 Requirements, as appropriate and consistent with law:
 - ▶ Identify, analyze, and address disproportionate and adverse human health and environmental effects (including risks), including those related to climate change and cumulative impacts
 - ▶ Evaluate relevant authorities and consider adopting mitigation
 - ▶ Identify analyze and address historical and systemic barriers

MAKING ACHIEVING EJ PART OF EACH AGENCY'S MISSION

- ▶ Opportunities for meaningful engagement is one of the 15 requirements – includes:
 - ▶ Timely opportunities for the public to share info and concerns
 - ▶ Fully considering public input
 - ▶ Seeking out and encouraging involvement
 - ▶ Offer/provide info in a manner that provides meaningful access to individuals who are LEP, have disabilities
 - ▶ Providing TA, tools....

MEANINGFUL ENGAGEMENT

- ▶ Sec. 5: Research, Data Collection and Analysis to Advance EJ
 - ▶ Office of Science and Technology Policy establishes EJ subcommittee
 - ▶ Annual summit
 - ▶ Analyzes gaps in data collection and research, particularly on participatory science, disaggregating data by race, national origin and other categories, analyzing cumulative impacts

OTHER PROVISIONS: RESEARCH, DATA

- ▶ Reporting under Emergency Planning and Community Right-to-Know Act (EPCRA)
- ▶ Public Meetings providing info required under provision of EPCRA

OTHER PROVISION: COMMUNITY NOTIFICATION ON TOXIC RELEASES

For example –

- ▶ Evaluate available legal authorities and consider steps to require/encourage non-Federal facilities to report releases under EPCRA
- ▶ Provide the EJ Subcommittee with annual report on trends of data in Toxics Release Inventory (TRI)
- ▶ Together with IAC, establish a clearinghouse online of EJ materials

SPECIFIC RESPONSIBILITIES OF EPA

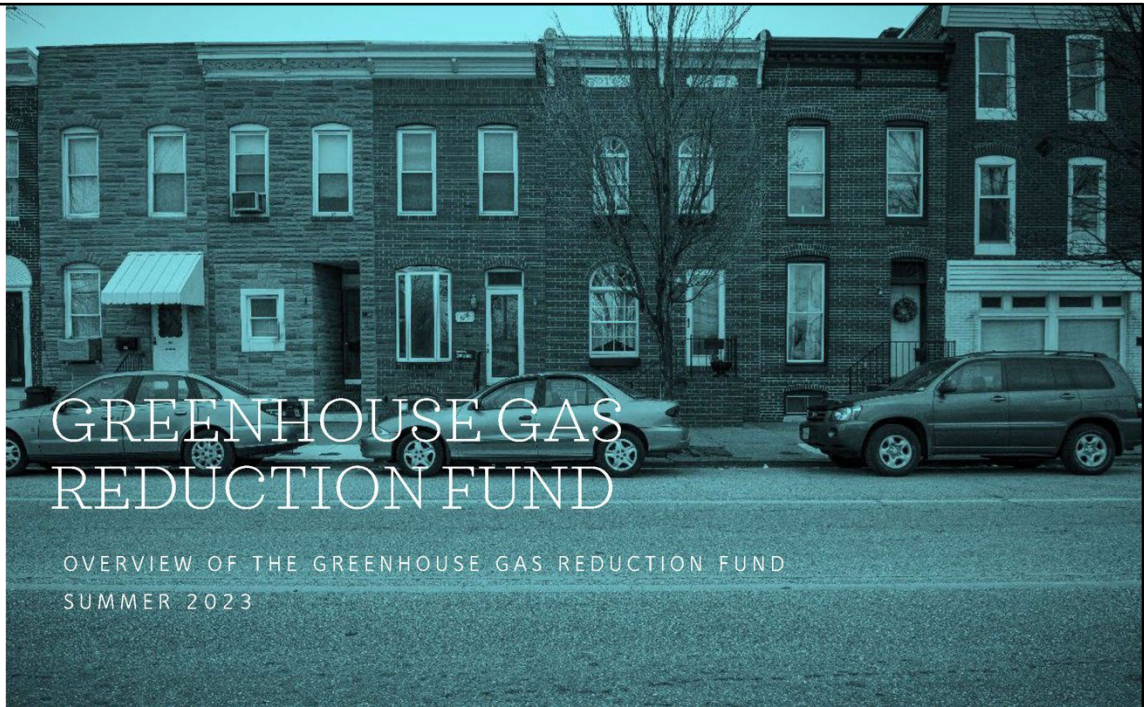
- ▶ The EO Establishes White House Office of EJ within CEQ led by a federal Chief EJ Officer
- ▶ Interim guidance within 6 months
 - ▶ Will identify ways to align with other efforts, such as Equity EOs
- ▶ Each agency implements

STRUCTURE/KEY NEXT STEPS

THANK YOU!

Greenhouse Gas Reduction Fund – Implementation Framework Update

Jahi Wise, Senior Advisor to the Administrator and Acting Director for the Greenhouse Gas Reduction Fund program, U.S. EPA



ADDITIONAL INFORMATION IN THE NOTICE OF FUNDING OPPORTUNITY DOCUMENTS ON EPA.GOV/GGRF



THE GREENHOUSE GAS REDUCTION FUND IS A HISTORIC INVESTMENT IN AMERICAN CLEAN FINANCE

History of the Greenhouse Gas Reduction Fund Program

- The Greenhouse Gas Reduction Fund is a historic investment to achieve the climate goals of the United States**

 - **President Biden's Inflation Reduction Act authorized EPA to implement the Greenhouse Gas Reduction Fund**
 - **The Greenhouse Gas Reduction Fund is a historic \$27 billion investment to combat the climate crisis by mobilizing financing for greenhouse gas- and air pollution-reducing projects in communities across the country**
 - **This bold investment will improve health outcomes and deliver lower energy costs for Americans while ensuring our country's economic competitiveness and energy independence**
- EPA prioritized robust stakeholder engagement during program implementation**

 - **Almost 400 public written comments submitted to the EPA in response to a public Request for Information**
 - **Over 12 hours of national public listening sessions with over 2,200 registrants and more than a dozen targeted stakeholder roundtables between October 2022 and May 2023**
 - **Nearly 150 additional written comments received in response to the April 2023 Implementation Framework**
- EPA created three distinct and complementary grant competitions to catalyze American clean investment**

 - **EPA intends the program to further the three Greenhouse Gas Reduction Fund program objectives of reducing greenhouse gas emissions and air pollution; providing benefits to American communities, particularly low-income and disadvantaged communities; and mobilizing financing and private capital to transform markets**
 - **The three Greenhouse Gas Reduction Fund grant competitions will scale deployment of clean technologies nationally, build community clean financing capacity locally, and spur adoption of clean distributed solar energy**
 - **EPA opened the three competitions in June and July of 2023 and will receive applications for 90 days¹**

1. The Solar for All grant competition requires all applicants also submit a Notice of Intent to be eligible to apply; the deadlines differ by applicant type, and applicants should refer to the Notice of Funding Opportunity to learn more about this requirement.

ADDITIONAL INFORMATION IN THE NOTICE OF FUNDING OPPORTUNITY DOCUMENTS ON EPA.GOV/GGRF



THE GREENHOUSE GAS REDUCTION FUND (GGRF) HAS THREE PROGRAM OBJECTIVES

The three Greenhouse Gas Reduction Fund program objectives



Reduce emissions of greenhouse gases and other air pollutants

Tackle the climate crisis and protect public health by supporting the climate goals of the United States to reduce greenhouse gas emissions 50-52 percent below 2005 levels in 2030 and achieve net-zero emissions by no later than 2050



Deliver benefits to American communities—especially low-income and disadvantaged communities

Maximize the benefits of GGRF investments—such as energy bill savings, pollution reduction, and workforce development—to American communities, especially low-income and disadvantaged communities



Mobilize financing and private capital to stimulate additional deployment




Catalyze market transformation by addressing the barriers to mobilizing private capital into clean projects in undercapitalized markets and facilitating tens of thousands of clean technology projects that deliver tangible benefits to millions of American households

ADDITIONAL INFORMATION IN THE NOTICE OF FUNDING OPPORTUNITY DOCUMENTS ON EPA.GOV/GGRF



TO ACHIEVE THESE THREE OBJECTIVES, THE GGRF PROGRAM WILL RUN THREE GRANT COMPETITIONS

Overview of the Greenhouse Gas Reduction Fund competition structure

	 National Clean Investment Fund	 Clean Communities Investment Accelerator	 Solar for All
Competition description	Fund national nonprofit financing entities to create national clean financing institutions capable of partnering with the private sector to provide accessible, affordable financing for tens of thousands of clean technology projects nationwide	Fund hub nonprofits to provide funding and technical assistance to specific networks of community lenders, financing clean technology projects in low-income and disadvantaged communities while simultaneously building the capacity of community lenders that serve those communities	Fund states, territories, Tribal governments, municipalities & nonprofits to develop long-lasting programs that enable low-income & disadvantaged communities to deploy and benefit from distributed residential solar
Grantees	2-3 national nonprofit financing entities	2-7 hub nonprofits	Up to 60 government and nonprofit financing grantees
Funding amount	\$14 billion	\$6 billion	\$7 billion
Deadline to apply	October 12, 2023	October 12, 2023	September 26, 2023

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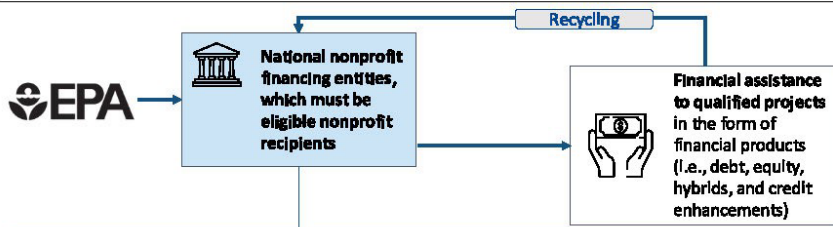
NATIONAL CLEAN INVESTMENT FUND GRANTEES WILL FINANCE TENS OF THOUSANDS OF PROJECTS NATIONWIDE

Overview

EPA will award grants to 2–3 national nonprofit financing entities to create national clean financing institutions capable of partnering with the private sector to provide accessible, affordable financing for tens of thousands of clean technology projects nationwide

At least 40% of program funds must be used for the purposes of providing financial assistance in low-income and disadvantaged communities

National Clean Investment Fund flow of funds



National Clean Investment Fund grant recipients develop long-lasting programs that:

- Provide financing to individuals, families, nonprofits, businesses, and others deploying qualified projects
- Provide financing to community lenders and other similar institutions so that they can, in turn, provide financing to the communities that they serve
- Support predevelopment and market-building activities that are reasonable and necessary to deploy financial assistance to qualified projects
- Mobilize private capital, with each dollar of public funds generating several times more private investment

Applications due October 12, 2023

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ADDITIONAL INFORMATION IN THE NOTICE OF FUNDING OPPORTUNITY DOCUMENTS ON EPA.GOV/GGRF



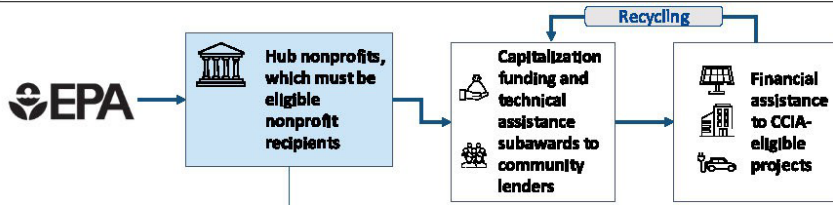
CLEAN COMMUNITIES INVESTMENT ACCELERATOR GRANTEES WILL BUILD CAPACITY OF HUNDREDS OF COMMUNITY LENDERS

Overview

EPA will award grants to 2–7 hub nonprofits that will provide **funding and technical assistance to public, quasi-public, not-for-profit, and nonprofit community lenders**, supporting the goal that every community has access to capital to deploy clean technology projects

100% of program funds must be used **for the purposes of providing financial and technical assistance in low-income and disadvantaged communities**

Clean Communities Investment Accelerator flow of funds



Clean Communities Investment Accelerator grant recipients develop long-lasting programs that:

- Provide capitalization funding (up to \$10M, unless EPA provides an exception) to community lenders, which could include community development financial institutions (including Certified Native CDFIs), credit unions, green banks, housing finance agencies, minority depository institutions, and others
- Provide technical assistance subawards (up to \$1M, unless EPA grants an exception) as well as technical assistance services to community lenders
- Focus exclusively on CCIA-eligible projects, which are qualified projects in three priority project categories (distributed energy generation and storage, net-zero emissions buildings, and zero-emissions transportation) that are in low-income and disadvantaged communities

Applications due October 12, 2023

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ADDITIONAL INFORMATION IN THE NOTICE OF FUNDING OPPORTUNITY DOCUMENTS ON EPA.GOV/GGRF



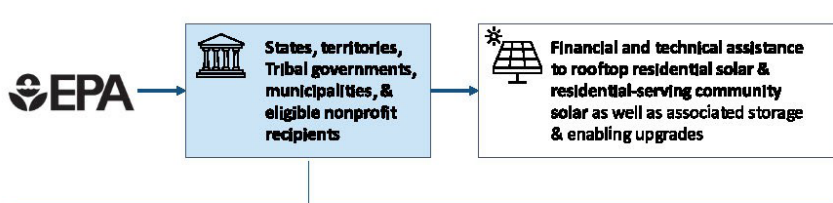
SOLAR FOR ALL GRANTEES WILL TACKLE FINANCIAL AND NON-FINANCIAL BARRIERS TO RESIDENTIAL DISTRIBUTED SOLAR

Overview

EPA will award grants to states, territories, Tribal governments, municipalities, and eligible nonprofit recipients to create **long-lasting programs that provide financial & technical assistance to rooftop residential solar projects and residential-serving community solar**

100% of program funds must **enable low-income & disadvantaged communities to deploy and benefit from residential distributed solar**

Solar for All flow of funds



Solar for All grant recipients develop long-lasting programs that:

- Provide grants, loans, and other forms of low-cost capital to rooftop residential and residential-serving community solar projects
- Support communities to deploy residential distributed solar with technical assistance such as workforce development, project-deployment support (e.g., siting, permitting, interfacing with utilities), and other activities to address non-financial barriers to solar deployment
- Address policy and regulatory barriers to residential distributed solar and leverage existing favorable policies by engaging with stakeholders on net metering, third-party ownership, & other relevant policies

Applications due September 26, 2023

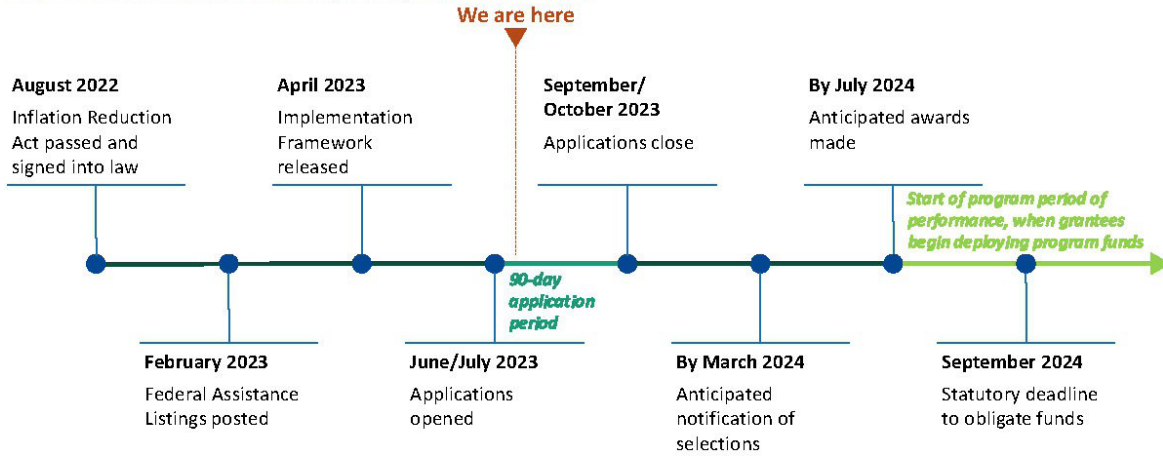
40

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EPA EXPECTS TO OBLIGATE ALL GGRF FUNDS BY THE STATUTORY DEADLINE OF SEPTEMBER 2024

Greenhouse Gas Reduction Fund Program Implementation Timeline



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Special NEJAC Recognition



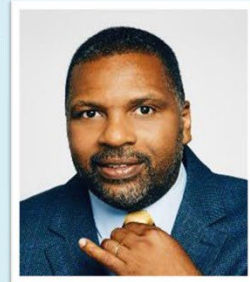
Na'Taki Osborne Jelks



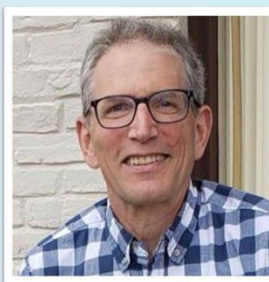
Sylvia Orduño



Jeremy F. Orr



Jerome Shabazz



Michael Tilchin




Sandra Whitehead




U.S. Environmental Protection Agency









National
Environmental
Justice Advisory
Council



PUBLIC MEETING
July 26, 2023

REMINDERS

-  Meeting attendees are in listen/view mode only
-  The chat feature will not be available in this virtual meeting
-  Attendees who pre-registered for public comment will be given access to speak as time allows
-  If you do not get a chance to speak during the allotted time, please submit your comments in writing

Written comments can be submitted until; August 9, 2023, to nejac@epa.gov

U.S. Environmental Protection Agency
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<h2 style="margin: 0;">AGENDA HIGHLIGHTS</h2> <p style="margin: 0;">Wednesday, July 26</p> <p style="margin: 0;">9:00 AM – 8:00 PM EASTERN</p>	
9:00 AM – 9:05 AM	Open Public Meeting
9:40 AM – 10:00 AM	Historical Perspectives on Environmental Justice Issues in Puerto Rico
10:00 AM – 10:20 AM	Climate Change Mitigation, Resiliency and Adaptation in Island Jurisdictions
10:20 AM – 12:00 PM	Puerto Rico Community Panel – Environmental Justice Challenges
1:00 PM – 2:00 PM	U.S. Virgin Islands Community Panel – Environmental Justice Challenges
2:00 PM – 3:30 PM	Grants Update & Opportunities for Feedback for Upcoming Environmental & Climate Justice (ECJ) Program Funding Opportunity
4:00 PM – 8:00 PM	Public Comment Period

Welcome & Recap

- **Matthew Tejada**, Deputy Assistant Administrator for Environmental Justice, Office of Environmental Justice and External Civil Rights – U.S. EPA
- **Sylvia Orduño**, NEJAC Co-Chair – Michigan Welfare Rights Organization
- **Dr. Na'Taki Osborne Jelks**, NEJAC Co-Chair – West Atlanta Watershed Alliance and Proctor Creek Stewardship Council
- **Michael Tilchin**, NEJAC Vice Chair – Jacobs Engineering



NEJAC Member Introductions

NEJAC MEMBERS

ACADEMIA



April Karen Baptiste, PhD
Colgate University
Region 2 - New York



Benjamin Pauli, PhD
Kettering University
Region 5 - Michigan



Jan Marie Fritz, PhD, C.C.S
University of Cincinnati
Region 4 - Florida



Sandra Whitehead, PhD,
George Washington University
Region 3 - District of Columbia



Jill Lindsey Harrison, PhD
University of Colorado Boulder
Region 8 - Colorado

NEJAC MEMBERS

BUSINESS & INDUSTRY



VICE-CHAIR OF NEJAC

Michael Tilchin
Jacobs Engineering
Region 3 - Maryland

NEJAC MEMBERS

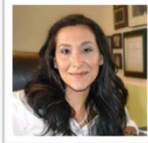
COMMUNITY BASED ORGANIZATIONS



Rev. Ambrose Carroll, Sr., PhD
Green The Church
Region 9 - California



Pamela Talley, PhD
Lewis Place Historical Preservation Inc.
Region 7 - Missouri



Leticia Colon de Mejias
Green ECO Warriors
Region 1 - Connecticut



Jerome Shabazz
JASTECH Development Services Inc
Region 3 - Pennsylvania



Cemelli De Aztlan
La Mujer Obrera
Region 6 - Texas



Sofia Owen, JD
Alternatives for Community &
Environment (ACE)
Region 1 - Massachusetts

NEJAC MEMBERS

COMMUNITY BASED ORGANIZATIONS (continued)



Yvonka M. Hall
Northeast Ohio Black Health
Coalition
Region 5 - Ohio



Nina McCoy
Martin County Concerned
Citizens
Region 4 - Kentucky



Richard Mabion
Building A Sustainable Earth
Community
Region 7 - Kansas



CO-CHAIR OF NEJAC

Na'Taki Osborne Jelks, PhD
West Atlanta Watershed
Alliance and Proctor Creek
Stewardship Council
Region 4 - Georgia

NEJAC MEMBERS

NON-GOVERNMENT ORGANIZATIONS



Andy Kricun
Moonshot Missions
Region 2 - New Jersey



Brenda Torres Barreto
San Juan Bay Estuary Prog.
Region 2 - Puerto Rico



Jeremy F. Orr, JD
Earthjustice
Region 5 - Illinois



Ayako Nagano, JD
Common Vision
Region 9 - California



Jacqueline Shirley, MPH
Rural Community
Assistance Corporation
Region 6 - New Mexico



Sylvia Orduño
Michigan Welfare Rights Organization
Region 5 - Michigan

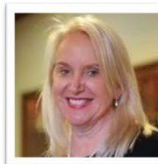
CO-CHAIR OF NEJAC

NEJAC MEMBERS

STATE & LOCAL GOVERNMENT



Millicent Piazza, PhD
Washington State Department of Ecology
Region 10 - Washington



Loren Hopkins, PhD
City of Houston Health
Department
Region 6 - Texas

NEJAC MEMBERS

TRIBAL & INDIGENOUS GOVERNMENT & ORGANIZATIONS



Joy Britt
Region 10 - Alaska



John Doyle
Little Big Horn College
Region 8 - Montana



Scott Clow
Ute Mountain Ute Tribe
Region 8 - Colorado



Jonathan Perry
Becenti Chapter
Region 6 - New Mexico

Opening Remarks

Lisa Garcia, Regional
Administrator, U.S. EPA Region 2



Carmen Guerrero, Caribbean Environmental
Protection Division Director, U.S. EPA Region 2





Historical Perspective on
Environmental Justice
Issues in Puerto Rico

Juan Rosario
AMANESER 2025

U.S. Environmental Protection Agency

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***Sustainability, Environmental Justice
and Colonialism***

In the Century of Climate Change

Juan E. Rosario **AMANESER 2025**
amaneser2020@gmail.com (787) 462-5088

Decades before the Environmental term was coined our communities were fighting for it:

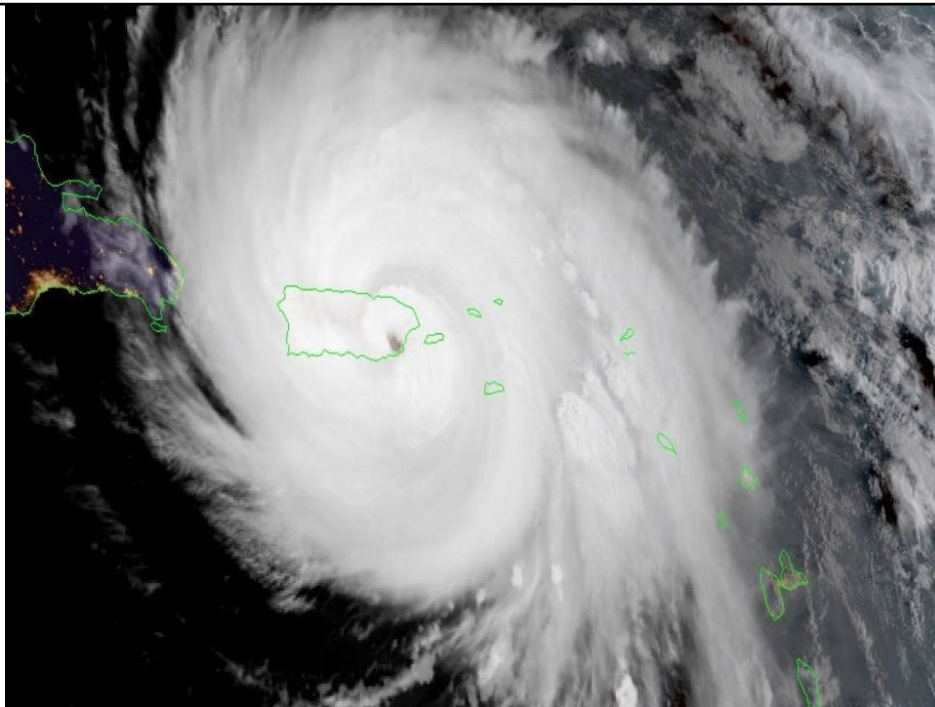
1. Struggles against cooper mining (1967...)
2. CORCO and oil refineries (1964....)
3. Waste Incinerators (1989.....)
4. Cataño non- attainment Air Basin (1967, 1991...)
5. Waste Regionalization Master Plan (1995..)



<https://www.geoisla.com/2019/11/el-descubrimiento-de-puerto-rico-por-agustin-anavitate-1993/>



<https://upr.contentdm.oclc.org/digital/collection/Moscioni/id/1164/rec/6>





Fuentes El Nuevo Día y UNIVISION

LOCALES
Bernardo “Betito” Márquez:
“ Nobody was prepared for this”

El alcalde de Toa Baja habla de las dificultades de su municipio tras el huracán María ...

domingo, 15 de octubre de 2017 Por Gabriela Saker Jiménez

The solution should:

1. Be simple enough to be deploy quickly;
2. By common people mainly with their own resources;
3. Democratic: community participation (national system), community control (local sub-systems);
4. Replicable;
5. Scalable;
6. Science supported;
7. Systemic and collaborative.



WE ARE AFRAID THAT THE WAY FUNDS ARE BEEN
ASSIGNED WILL NOT SOLVE THE ROOT PROBLEM BUT
WILL FOSTER MORE DEPENDENCY AND COLONIALISM.
I AM HOPEFULL THAT THIS MEETING CAN BE THE
TURNING POINT TOWARDS A MORE SENSIBLE APPROACH
IN THE CENTURY OF CLIMATE CHANGE
OUR COMMUNITIES, COLLABORATORS IN USA AND EPA
DID IT IN THE 1990s. WE CAN DO IT AGAIN.

THANK YOU



Climate Change Mitigation, Resiliency and Adaptation in Island Jurisdictions

Brenda Torres
Director, San Juan Bay Estuary
Program and NEJAC Member

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Climate Change Mitigation, Resiliency, and Adaptation in Island Jurisdictions

National Environmental Justice Advisory Council

Brenda Torres Barreto
Executive Director, San Juan Bay Estuary Partnership



ESTUARIO

Climate Change Mitigation, Resiliency, and Adaptation in Island Jurisdictions

Presentation highlights

- Climate change disproportionate impact on Island Communities
- Opportunities to support a fair distribution of resources to address the impacts of climate change
- Provide a few examples of efforts and initiatives done through the local national Estuario Program, Estuario

Special thanks to the Climate Strong Island Network for supporting this presentation through the National Policy Framework developed by our members.



Island Climate Justice

At the UNICEF's Climate Justice Roundtable in 2022 the verb climate justice is explained as:

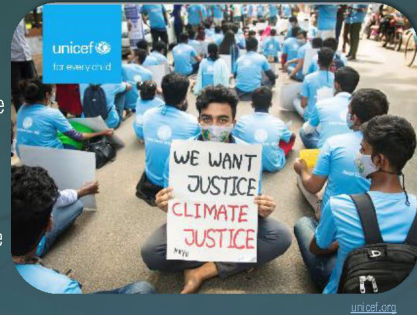
- Linking human rights with development and climate action
- Having a people-centered approach to climate action
- Understanding that not everyone has contributed to climate change the same way
- Combating social injustice, gender injustice, economic injustice, intergeneration injustice and environmental injustice
- Requires a system transformation



Climate Justice Roundtable – 24 February 2022, Top: Lucy Szaboova, Salote Soqo; bottom: Eric Njuguna, Christina Kwaik, Sara Cognuck – unicef.org

Island Communities and their unique climate reality

- Vulnerable communities are typically referred as low-income communities, children, the elderly, communities of color, Tribal communities, and Indigenous people. To the list of vulnerable communities, a new category is added in this presentation: **Island Communities.**
- Policy makers and citizens will be able to assertively address each of the challenges and bring justice to islanders by identifying and evaluating **the particular challenges island communities confront as a separate category.**
- Due to their geographic isolation and other unique circumstances, some of the challenges experienced by island communities are difficult to address through “one-size fits all” federal policies.
- Policies applied to islands require an extra level of analysis, as well as local island community input and may demand exceptions or exemptions.



US Islands

Over five million

Americans live on islands across the Caribbean (Puerto Rico and the USVI), the Pacific (Alaska, American Samoa, Guam, Hawaii, and the North Mariana Islands), and the mainland (Chesapeake Bay, Florida Keys, the Great Lakes, the Outer Banks, Maine and New England, Puget Sound and the Pacific NW).



Islands' vulnerability to climate change

Many islands are especially vulnerable to the risks of climate change because of:

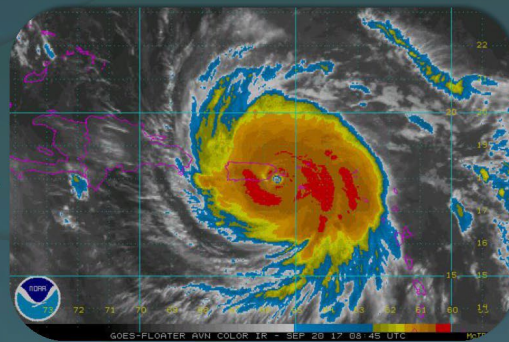
- their small size,
- low elevation,
- remote geographical location, and
- concentration of infrastructure along coastlines.



Frontlines of the Climate Crisis

Island communities in the United States and around the world are on the front lines of the climate crisis, and are already coping with:

- **recurrent extreme weather events and rising seas** that are compromising critical infrastructure, including electrical grids, water systems, telecommunications facilities, roads and bridges, and port facilities;
- **overburdened and under-resourced** health care, food, education, and housing systems;
- **changes in the marine environment** that are devastating fisheries, and degrading the ecosystems; and,
- and, in most cases, a **relative lack of political power**.



Climate Stressors

Precipitation: Continued variation in trends is expected in the future, but on average precipitation is expected to decrease across the Caribbean. In Puerto Rico, an increasing amount of rain has been falling in the form of **heavy downpours** in recent history. The Pacific Islands are highly influenced by El Niño and La Niña events, which create annual variability in storms and precipitation.

Temperatures: Islands are experiencing rising air temperatures triggering a larger proportion of the **most intense tropical cyclones, storm surges, droughts, sea-level rise, coral bleaching, and invasive species**, all of which are already detectable across both natural and human systems.



Climate Impacts to:

- **Cities and Settlements:** A high percentage of island population, infrastructure and economic assets are located in the low elevation coastal zone. These same regions are exposed to the impacts of climate change; thus their infrastructure, health and wellbeing, water and food security, and economies and culture.
- **Ecosystems:** Ecosystem degradation is likely to decrease the provision of resources to the millions of people inhabiting small islands.
- **Coral Reefs:** coral reefs, which are the island's first line of defense against storm waves and flooding, are being impacted by extreme atmospheric events. Also, their integrity is affected by severe coral bleaching due to warmer and more acidic ocean waters.
- **Food:** Coastal land loss attributable to higher sea level, increased extreme precipitation and wave impacts, and increased aridity have contributed to food and water insecurities that are likely to become more acute in many places.
- **Migration and Culture:** Cultural structures may be lost to rising seas while availability of traditional foods may decline. Residents in coastal areas may need to relocate if climate-related damages become too extreme.
- **Infrastructure and economy:** Higher sea levels, inundation, flooding, and shoreline and beach erosion are expected to affect critical transportation, energy, and water infrastructure, including airports, roads, ports, and wastewater systems.
- **Water resources:** The impacts on water supplies is felt even more severe on islands where populations are growing or where infrastructure is old or poorly maintained, such as in Puerto Rico. The increase in precipitation or heavier downpours, can cause flooding, overload water infrastructure systems, and result in sewage contamination and public health concerns.

Key tasks to become climate resilient

As proposed by the Climate Strong Island Network

www.climatestrongislands.org

1. Clean Energy
2. Watershed Planning
3. Food Security
4. Disaster Preparedness
5. Sustainable Marine Economy
6. Waste Management
7. Transportation



The Estuario Case Study

- As part of EPA's **National Estuary Program (NEP)**, the San Juan Bay Estuary Partnership, better known as Estuario, collaborates closely with the Region II Caribbean Division to restore and conserve the natural waters of the San Juan Bay Estuary in Puerto Rico, as a sustainable axis for social and economic development.
- Estuario is the only tropical and non-continental estuary that is part of the National Estuary Program.
- For the past 29 years, we have experienced first-hand the challenges and opportunities that our unique context as an island signifies in us gathering the benefits of Federal policies and programs.
- The San Juan Bay Estuary community in Puerto Rico is vulnerable to natural disasters, particularly hurricanes, occurring with increasing intensity and frequency.
- Natural disasters like Hurricane Maria in 2017 placed heavy burdens on local government and jeopardize community members; access to clean water, electricity and medical supplies.



The Estuario Case Study

Resilience Hubs

Estuario has established four resilience hubs to serve as a space for empowerment and refuge in times of emergency. Estuario increased the resiliency of the community by installing solar panels, improving safe water accessibility and stocking of first aid equipment in the hubs. In times of non-emergency, the hubs serve as a training and education space for residents.

Estuario's Citizen Scientists for Socio-Ecological Resilience Certification

The Certification scientifically assesses the state of the coastal ecosystems in vulnerable regions. Estuario supports the development of a blue-green workforce capable of assessing its own risks, vulnerabilities, and assets, particularly after being impacted by extreme weather events.

Multi-jurisdictional Hazard Mitigation Plan for the San Juan metropolitan region

Estuario has embarked on developing the multijurisdictional hazard mitigation plan, the first plan of this nature to be implemented in Puerto Rico. The plan will be prepared by the jurisdictions that make up the watershed basin of the San Juan metropolitan region.

Illicit Discharge Detection and Elimination efforts

Estuario developed a systematic stratified diagnostic strategy for 12 critical subbasins with significant sanitary infrastructure to begin generating information for addressing the gap that almost always exists between environmental water-quality monitoring systems and their relationship to people's health, and access to healthcare support. A community engagement component of this project is crucial in involving the communities in identifying and monitoring of illicit discharges.

Conclusion:

Despite the barriers and many challenges highlighted in this presentation, island communities could use the following enablers to build resilience:

- ✓ better governance and legal reforms
- ✓ build human resource capacity
- ✓ increased finance and risk transfer mechanisms
- ✓ education and awareness programs
- ✓ increased access to climate information
- ✓ adequately downscaled climate data and integrate cultural resources into decision-making
- ✓ improving justice, equity and gender considerations.





Puerto Rico Community Panel

ENERGY AND AIR QUALITY

Ruth “Tata” Santiago, Diálogo Ambiental,
Queremos Sol, Communities of Salinas
and WHEJAC Member

Electric System Transformation in Times of Climate Crisis in Puerto Rico, the Caribbean and Beyond

Ruth Santiago, JD,LLM
Community and Environmental Lawyer
rstgo2@gmail.com



Multiple Crises - Economic, Fiscal, Climate, Earthquakes and COVID-19

- Tax exemptions laws and other incentives for private investment.
- High unemployment rate- usually three times the national average; Salinas over 20%.
- 43 percent poverty rate – the highest of any state or territory.
- Median household income in Puerto Rico is \$21,000, approximately one-third of the U.S. median.
- First or second highest electric rate, dependence on imported fossil fuels.
- Debt was about \$72B plus over \$40 billion government obligations to pension funds. PREPA Debt Restructuring pending.
- Mass migration to US mainland-over 700,000 people, many working aged people and professionals-doctors.
- EO 12,898, 14,008, 14,096-Environmental justice-Overburdened communities with higher poverty and unemployment rates, school and hospital closings, underserved especially in the Guayama Region.



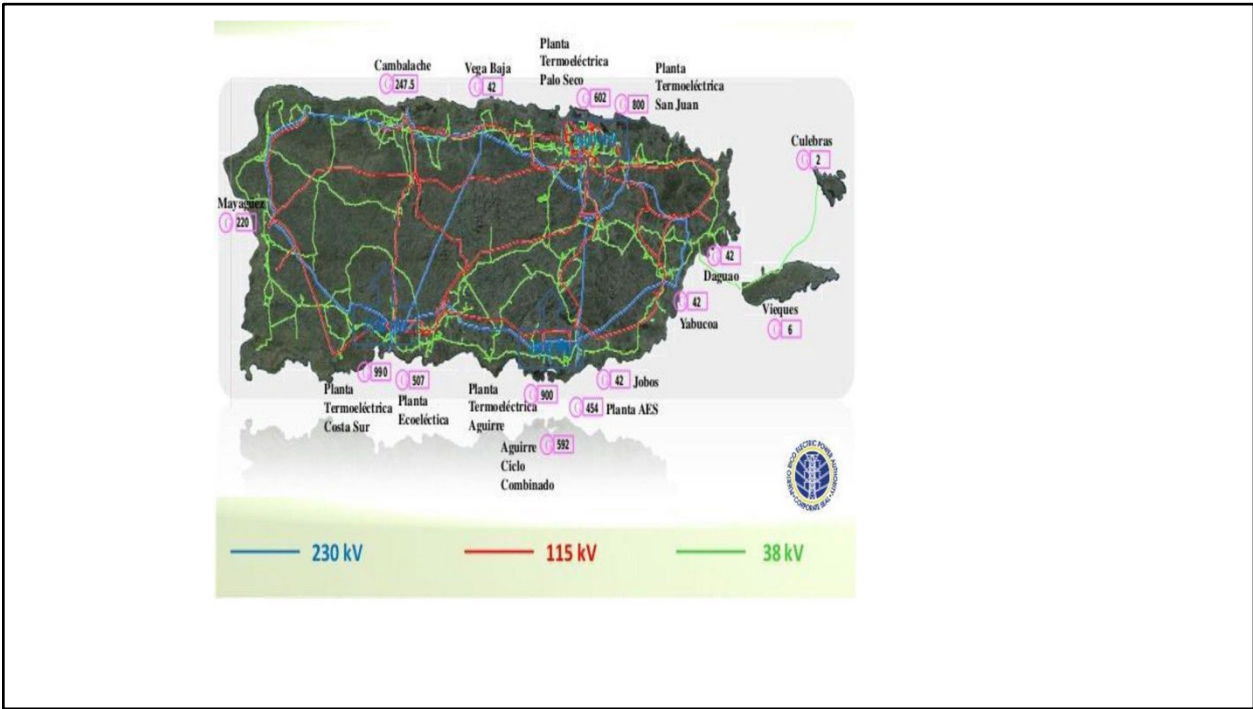
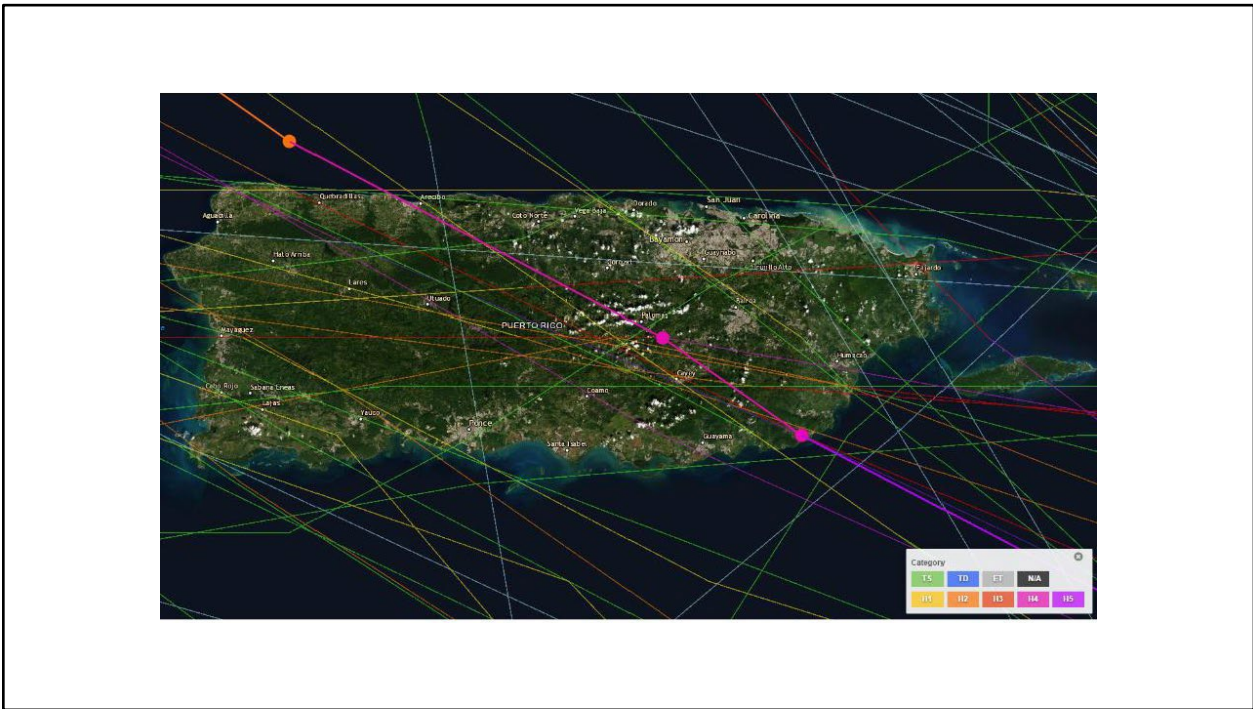
Hurricane Fiona, Sept 2022; Lessons (not learned) from the 2017 Hurricanes-FEMA, HUD, NEPA

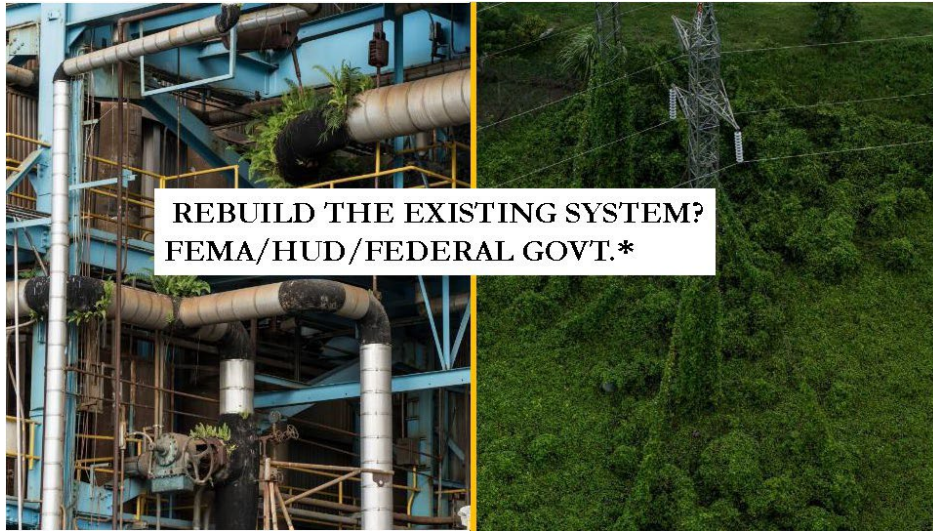
- Hurricanes and other “natural” disasters exacerbated by the climate crisis took down the electric grid, i.e., the transmission and distribution (T&D) system ([Lloréns et al., 2018](#); [Onís, 2018a, 2018b](#); [Onís, Lloréns, & Santiago, 2020](#)).
- Communities must become energy literate, implement energy efficiency and otherwise participate in the electric system; PREPA-the public utility needs a radical transformation both in terms of technology and governance ([Castro-Sitiriche, 2019](#)).
- Community empowerment through participation in the electric system as “prosumers”-energy producers not just passive consumers ([O’Neill-Carrillo & Rivera-Quiñones, 2018](#); [O’Neill-Carrillo et al., 2019](#)).
- FEMA and HUD funding should be used for the transformation of the electric system that earmarks federal funds so that the public utility works with organized communities and local renewable energy contractors=energy democracy ([Santiago, Onís, & Lloréns, 2020](#)).

Hurricane Maria Impacts

- Estimated 80% of the transmission and distribution systems seriously damaged. Prof. Efrain O’Neill, PhD, UPRM
- Estimated 50,000 poles, 500 transmission towers down. USACE
- Knocked out 100% power
- Communications failure
- “Generator Island” diesel fumes, high noise levels
- Immense human suffering and approx. 3000-4000+ deaths.









Coqui Solar, Salinas



Energy Justice and Energy Poverty

- Energy justice is defined as “the goal of achieving equity in both the social and economic participation in the energy system, while also remediating social, economic, and health burdens on those disproportionately harmed by the energy system” (Initiative for Energy Justice, 2019).
- **Two separate and unequal energy systems** - high income residents are acquiring or leasing rooftop solar + battery energy storage systems. Low- and middle-income residents largely do not have access to life-saving energy options ex. Hurricane Fiona.
- Small community-based and nonprofit rooftop solar projects.
- Frequent power outages-the Puerto Rico Medical Center was without electric power for about 16 hours-”Hurricane LUMA”. Hurricane Fiona, Category 1 but led to total power outage.
- Utility scale solar projects on prime agricultural land dependent on the centralized grid. (Over 1 year to fully reconnect after Hurricane Maria).
- **Proposals for new methane gas** per the Energy Public Policy Act (Law 17) and hydrogen plants which perpetuate the centralized grid versus studies on viability of rooftop solar (4-6x demand).

VIABILITY OF ON-SITE/ROOFTOP SOLAR, BESS, EE, DR- FEMA, HUD DOE/NREL PR100

- The draft Integrated Resource Plan (IRP) prepared by Siemens Industry, Inc for the Puerto Rico Electric Power Authority (PREPA) indicates that the unit costs for all customer alternatives considered are lower than the final all-in (ESM and S4S2) generation portfolio rates. (Pages 8-30 and 8-46 of the 6/2019 IRP draft). The cost of customer owned generation is significantly lower than the total rate of PREPA’s preferred plans.
- Expert consensus on economic and technical viability of roof-top, on-site solar generation and battery energy storage systems (BESS) in Puerto Rico at the technical hearings for PREPA’s IRP held Feb. 3-7, 2020.
- IRP Action Plan orders 3,750MW of renewable energy but not on track.
- DOE PR100 study-4-6 times rooftop solar potential.

Excess LNG Capacity in US

- Two LNG export terminals in operation and four more under construction; collectively representing 71.05 million tons per annum (MMtpa)
- More than 300 MMtpa of additional capacity has been proposed
- IRP Exhibit 7-1 total contracted capacity is equal to 63.08 MMtpa or 88.8% of nameplate capacity.
- Nearly 8 MMtpa of uncontracted capacity
- Puerto Rico’s LNG estimated demand 6.5 Mmtpa
- 2019 PREPA IRP

Jones Merchant Marine Act

U.S.-based LNG export facilities would require Jones Act-compliant ships to transport LNG to Puerto Rico.

The Jones Act requires goods traveling between U.S. use ships constructed and flagged in the US, with primarily U.S. crews.

No Jones Act-compliant, large-scale U.S. vessels that can carry LNG in large onboard tanks. In addition, no US shipyard has constructed an LNG carrier in nearly four decades.

There are U.S. vessels that carry LNG in ISO containers.

Puerto Rico primarily receives LNG supply from Trinidad & Tobago but its more expensive and possibly running out.

Public Health Impacts of Methane Gas-PEHSU

- With the Aguirre Offshore GasPort Project, the types of VOCs that will be released include chemicals such as formaldehyde, benzene, toluene, hexane, and styrene. Many of these VOCs are known to have both short term and long term effects. These effects include irritation of the eyes, nose, throat and skin; headache, nausea and dizziness; fatigue and shortness of breath; and worsening of respiratory conditions such as asthma. Long term effects resulting from chronic exposure include increased risks of some types of cancers or other diseases such as kidney failure. Health effects vary depending on the chemicals involved and the duration of the exposure.

AOGP PSD Non Applicability Analysis-50% ACF

Table 4-4 Project Emissions – Aguirre Plant and GasPort

Pollutant	Baseline Actual Emissions (tons/year)	Aguirre Boilers and CC Plant Future Potential Emissions (tons/year)	GasPort Potential Annual Emissions (tons per year)	Emissions Increase ⁽²⁾ (tons/year)	PSD Significant Emission Rate (tons/year)	PSD Applicability (Yes/No)
NO _x	7,514	6,610	110	-795	40	No
CO	1,415	1,000	123	-293	100	No
VOC	25	42	16	32	40	No
PM	1,205	899	21	-285	25	No
PM ₁₀	1,298	950	21	-327	15	No
PM _{2.5}	876	680	21	-175	10	No
SO ₂	11,259	5,422	21	-5,816	40	No
H ₂ SO ₄	503	242	1	-260	7	No
Pb	0.2	0.1	0.0	-0.1	0.6	No
Fluoride	3	3	0	0	3	No
GHGs (total mass)	4,117,379	3,838,316	321,266	42,204	N/A	N/A
GHGs (CO ₂ equivalents)	4,130,847	3,846,054	321,773	36,980	75,000	No

(1) Detailed emissions calculations are presented in Appendices B and C.
 (2) Negative numbers denote emissions decreases.

New Fortress Energy-NFEnergia & co.-Genera PR

- LNG industry -New Fortress- is using Jamaica and Puerto Rico to offload excess fracked methane gas as summarized in this quote:

"Most recently, the cheaper LNG the company purchased and shipped to its Puerto Rico facility was U.S.-sourced, according to a Capitol Forum analysis of AIS shipping data. Notably, the shipping data indicates that the company has used foreign-flagged vessels to transport the LNG between Freeport Texas, with an intermediate stop in Jamaica, on its way to Puerto Rico, potentially running afoul of the Jones Act, according to maritime legal and industry experts." The Capitol Forum

NF operation in Wyalusing, Pa and project in Gibbstown, NJ

AES Corporation in the Dominican Republic

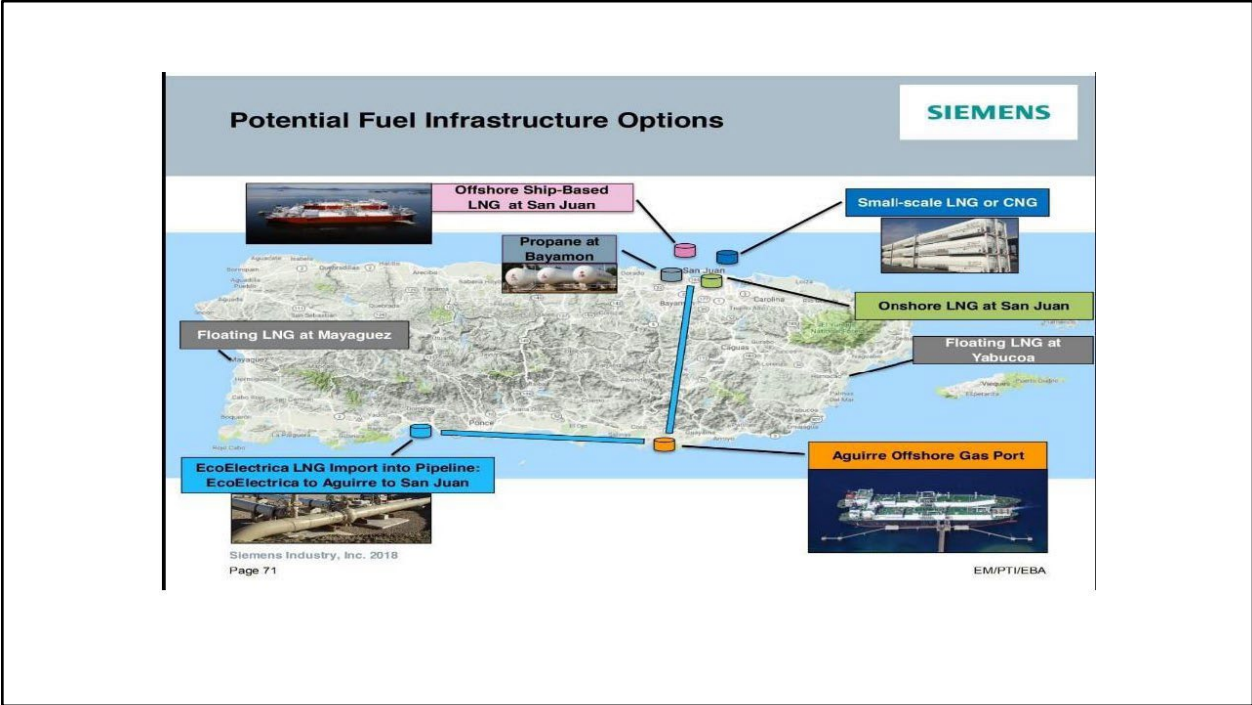
Transition? New Fortress Energy-NFEnergia Conversion SJ 5&6 Methane

- LNG ports



- Central station power plants





Recent EJ Findings Compiled by Dr. Bob Bullard

- Fine particulate pollution (PM2.5) such as soot, dust or smoke causes between 85,000 to 200,000 deaths in the United States each year.
- People of color are disproportionately and systematically exposed to more deadly PM2.5 air pollution than Whites, regardless of location or income level.
- Black Americans in particular are exposed to higher-than-average levels of fine particulate pollution than White Americans.

Source Tessum et al. (2021), Liu et al. (2021)

Electric Power Generation in Puerto Rico Overburdens Communities

AES, Puerto Rico LP,* Nov.2002
Guayama, PR



Puerto Rico Electric Power Authority
Aguirre Power Complex*,
Salinas, PR

CAA-NAAQS Non-attainment SO₂,
Other emissions, water use, thermal
discharges, noise levels up to 119
decibels, etc.

PR Climate Change Mitigation Adap-
tation and Resilience Law.



Externalities of Coal Combustion, costs not borne by AES

- Air Emissions-CO₂, Mercury, others.
- Water Usage for cooling and process-AES extracts water from South Coast Aquifer for pennies, sole source of potable water for tens of thousands of people-critical status.
- Water Discharges -AES fined by EPA for discharging contaminated water into bay, largest fine in PR up to that date (2011).
- Water Contamination of the South Coast Aquifer-sole source of potable water for tens of thousands of people.
- Coal Ash Waste-Coal Combustion Residuals-CCRs-No disposal facility, millions of tons improperly disposed of.
- Little Blue Run in western Pa.



The Visible Externality

- Coal ash
 - Coal Combustion Residuals (CCRs)
 - Heavy metals, radioactive isotopes
- Approximately 100 million tons generated in the US annually-second largest waste stream.
 - About 300,000 tons per year by AES plant in Guayama, Puerto Rico.



Coal ash in storm water sewer system

Salinas, Puerto Rico

Photo by *Vicente Quinones*

AES Coal Ash Sample-Heavy Metals and Radioactive Isotopes

- 23 mg/kg of arsenic,
- 720 mg/kg of barium,
- 140 mg/kg of boron,
- 310 mg/kg of manganese,
- 6500 mg/kg of magnesium,
- 19 mg/kg of selenium,
- 130 mg/kg of vanadium,
- among other elevated levels of metals,
- alpha particles of 9.9 pCi/gm, nearly twice the levels of applicable or relevant and appropriate requirements (ARARs) for surface soil, 5.7 pCi/gm of beta particles, exposure to radiation from AES-PR CCRs is three times the ARAR standard for surface soil

Leaching Environmental Assessment Framework (LEAF)

- US EPA has been in the process of developing, validating, and adopting the leaching tests of the Leaching Environmental Assessment Framework (LEAF) for inclusion into its analytical chemistry testing guidance, SW-846, with intended use in situations where TCLP is not required or best-suited (Garrabrants et al., 2010; 2012a; 2012b).
- LEAF testing methodologies have been applied extensively to coal combustion residues (CCRs) as part of US EPA research on the potential impacts of land disposal or from engineering and commercial applications using fly ash and other secondary materials (Sanchez et al., 2006; 2008; Kosson et al., 2009; Thorneloe, 2010).

UPR Graduate School of Public Health Epidemiological Study

1 out of every 3 people in Guayama has been diagnosed with a respiratory disease.

1 out of every 4 people in Guayama has been diagnosed with cardiovascular disease.

Pediatric asthma is approximately 5 times greater in Guayama.

Severe asthma in children is 6 times higher in Guayama. Prevalence of urticaria is 7 times higher in Guayama.

Prevalence of spontaneous abortions is more than 6 times greater in Guayama.

Probability of suffering from chronic bronchitis in the larger population of 45 years is 9 times higher in Guayama.

AES Coal Ash Agremax “Beneficial Use”

- Fill material at residential, commercial, and road construction projects in southeastern Puerto Rico
 - Flood-prone areas
 - Above sole-source aquifer
 - Proximity to wetlands and ecologically sensitive areas
- Virtually all disposal of coal ash is in heavily populated areas where people depend on the sole source aquifer for potable water.



Coal ash in housing construction project

Salinas, Puerto Rico

Photo by *Victor Alvarado*

Environmental Injustice

- Concentration of coal ash disposal sites in proximity to the AES plant in southeastern Puerto Rico
- Disproportionate burden on the people and environment of the poorest municipalities, especially communities with large afro-descendent populations.
- Ex. Salinas Census afrodescendent 38% PR 11.7%, Guayama historical data 41% slaves + mulattoes, PR 11.6%. (Dr. Hilda Llorens-periphery of the periphery).



Child in the midst of coal ash

Salinas, Puerto Rico

Photo by *Victor Alvarado*

Race to the Bottom Phenomenon within US and Globally

- Contributes to coal ash use
- Jurisdictions seek to attract “low cost” energy and forego:
 - protective elements,
 - requirements for which they have authority,
 - lax enforcement,
 - insufficient resources needed to monitor operations that entail potentially significant environmental impacts

Campaigns

- Will you join us in urging FEMA to prioritize resilience and energy justice, not the fossil fuel status quo? [Here's a social toolkit with tweets & graphics](#) (and [here's a version in Spanish](#)).
- Please retweet: [here](#), [here](#), and [here](#)
- <https://docs.google.com/document/d/1ocleEJKX84onS0TBIeQgQLTL3XqZozdg5EtXH779Bjk/edit?usp=sharing>
- <https://earthjustice.org/article/puerto-rico-needs-solar-energy-not-fossil-fuels>
- The [Reimagining Energy for our Communities zine](#) is a product of a deep collaboration between activists and advocates across the country. Download the zine to read their stories, and learn about the opportunity for reimagining energy systems that are designed, governed, and controlled by communities—not private electric corporations. To help your community use this zine to reimagine energy, here is an accompanying [facilitation guide](#)!

Environmental Justice: Case Study-The Coal Death Route- Hilda Llorens, PhD

- Colombia, South America-5th largest exporter of coal in the world-Turkey-Ireland-Puerto Rico
- Cerrejon in La Guajira-one of the largest open pit mines in the world; Cesar, others
- BHP Billiton, Anglo American, and Glencore, previously ExxonMobil
- Royalties to the Colombian government
- Displacement of Wayuu and Afro-descendent communities
- No previous consultation/informed consent
- Impacts to water resources
- Tajo Patilla-open wound

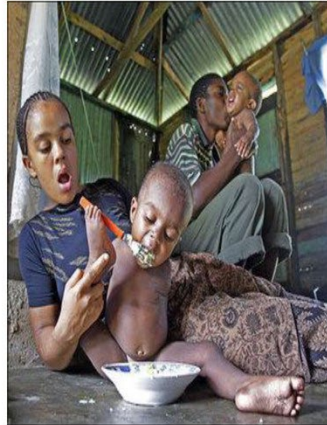




Imminent and Substantial Endangerment



AES Coal Ash dumped in Arroyo Barril, Dominican Republic



Plaintiffs alleging birth defects against AES Arroyo Barril, Dominican Republic

AES Paid 6 Million to DR Government

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SETTLEMENT AGREEMENT AND RELEASE

This Settlement Agreement and Release ("Settlement Agreement") is made by and between The AES Corporation, AES Atlanta, Inc., AES Aggregate Services, Ltd., and AES Puerto Rico, L.P. (together with their past, present, and future, direct and indirect, directors, officers, employees, agents, shareholders, parent, companies, subsidiaries, affiliates, related entities, successors, and assigns, "AES") on the one hand and the Government of the Dominican Republic and the Secretaries of State of the Environment and Natural Resources of the Dominican Republic on the other (collectively, the "Dominican Republic") (AES and the Dominican Republic are each separately referred to as a "Party," and both are collectively referred to as the "Parties") on the date last executed below (the "Effective Date").

WHEREAS, certain disputes have arisen between the Dominican Republic and AES relating to the deposit of manufactured aggregate at two locations within the Dominican Republic, Samana and Manzanillo (the "Material"); and

WHEREAS, the disputes between the Parties have resulted in litigation between the Parties, namely, the litigation pending before the Honorable Circuit Judge Leo in the United States District Court for the Eastern District of Virginia (the "Court"), captioned The Government of the Dominican Republic et al., v. The AES Corporation et al., C.A. No. 1:06-cv-13 (GHL/BRP) (hereinafter the "EDVA Litigation"); and

WHEREAS, the Parties, without either admitting liability, to avoid any risk and litigation and all issues relating thereto upon the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the mutual promises and agreements herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, hereby agree as follows:

1. **Payment.** Subject to Paragraph 8 below, on or before the Deposit Date, AES will deposit or cause to be deposited Six Million Dollars (\$6,000,000) (the "Settlement Fund") by wire transfer of immediately available funds to the Escrow Account (as defined in Paragraph 13). The Deposit Date shall be that date (in (1) business days ("business day" means a day other than a Saturday, Sunday, or other day when banking institutions in New York City, New York or Minneapolis, Minnesota are authorized or required by law or executive order to be closed) after the latter of (a) the Republic's claims against The AES Corporation, AES Atlanta, Inc., AES Aggregate Services, Ltd., and AES Puerto Rico, L.P. (the "AES Signatories") in the EDVA Litigation, and (b) the Dominican Republic's filing of a notice of dismissal with prejudice of its claims against Silver Spot Enterprises, Inc. and Roger C. Finn in the EDVA Litigation.

Puerto Rico Community Panel

OPEN DUMPS, SOLID WASTE MANAGEMENT, AND CIRCULAR GENERATION

Ingrid Vila, CAMBIO PR, Generación Circular Puerto Rico

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Waste? FROM LINEAR TO CIRCULAR

Ingrid M. Vila Biaggi MS, PE
President/co-founder, CAMBIO

July 26, 2023
NEJAC Public Meeting, San Juan

CambioPR.org



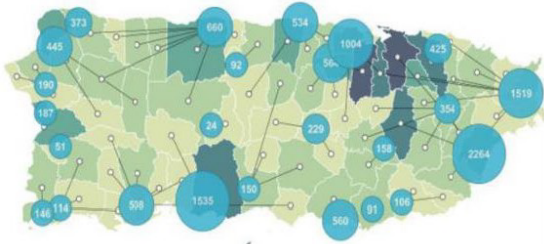


Historical Background

Before 1970	Both in US and PR waste disposed in “landfills” or open dumps. --contamination hot spots, impacting soil, air and water.
1970	Puerto Rico had 77 open dumps, 70 of which burned their wastes.
1976	Federal Resource Conservation and Recovery Act (R.C.R.A.)
1978	PR Solid Waste Authority (SWA) is created --Planning of management and disposal of solid waste
1991	EPA issued Solid Waste Disposal Criteria
1992	Puerto Rico Act 70- response to new EPA Criteria and public opposition to proposed incineration plants in PR --Hierarchy for handling waste in Puerto Rico: Reduction--Reuse—Recycling--Energy recovery of non-RRR material--Landfill remaining in RCRA compliant. --Recycling objectives: initially 35% by 1995, postponed twice, not achieved. --Requires municipalities to adopt recycling plans.
1994	PR Government closes 32 landfills/open dumps out of 64 because they are unable to comply with federal requirements.



Currently




~5.18 lbs/person-day
(vs. 4.19 lbs/person-day
in continental US)

27 landfills
-16 non-compliant
(10 cease operation
orders)


~10% recycling rate

Municipalities have
primary jurisdiction on
solid waste
management



Handling Waste: Landfills

- Environmental justice-impact on human health and environment
 - Contamination to soil, groundwater, bodies of water
 - Landfills-Superfund sites:
 - Vega Baja (lead, arsenic, pesticides),
 - Juncos (mercury thermometers Becton-Dickinson),
 - Barceloneta (deposited in sink holes, groundwater contamination, heavy metals and VOC's)
 - PROTECO – Peñuelas- Hazardous Waste landfill (mercury, PCE, TCE, VCE)
 - Methane – greenhouse gas
 - Disease vectors, Objectionable odors
- Active claims by communities for immediate landfill closures, such as Arecibo.



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Handling Waste: INCINERATION AS A LOOMING THREAT

February 2023

Noticias ✉️ 📱 🌐

Revive la opción del Waste-to-Energy

El Gobierno ve una oportunidad para el sector privado.



- First projects proposed for San Juan in 1986.
- 3 waste-to-energy projects have been proposed for Arecibo between 1996-2018.
- All have been rejected due to public opposition.

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R-R-R?

- 60% waste diversion goal by 2030 – PR Climate Change Act
- Currently no central government plan to promote reduction, reuse or recycling or to reduce pressure on landfills.
 - SWA was dismantled in 2018 and its responsibilities assigned to the DNER.
 - Currently no effective data collection, no support to municipalities, no oversight, limited human and financial resources.
- Some municipalities have relatively effective waste separation/collection programs.
- Very limited actual recycling happening in PR.



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Little Recycling...Plenty of Corruption

- Since 2021, mayors and former mayors accused or associated with waste collection corruption schemes:
 - Cidra
 - Aguas Buenas
 - Humacao
 - Trujillo Alto
 - Cataño
 - Guaynabo

#elnuevodia.com

La corrupción rezaga el reciclaje en Puerto Rico

Esquemas como el de Oscar Santamaría operan contra la política pública ambiental y perpetúan el manejo inadecuado de residuos sólidos

Lunes, 20 de diciembre de 2021 - 11:40 p.m.
 Por Gerardo E. Alvarado León y Laura M. Quintero

[f](#) [t](#) [w](#) [e](#)

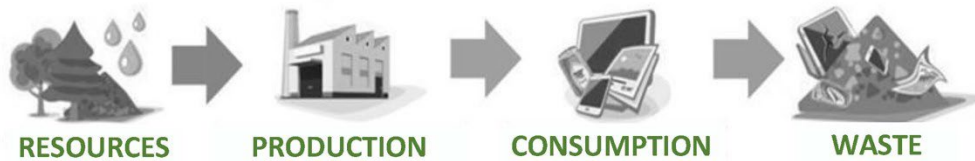
Nota de archivo: este contenido fue publicado hace más de 30 días.





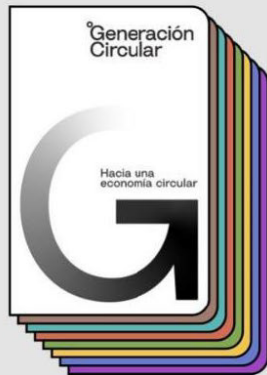
Linear economy: Driver of waste

- Current linear economic model **extract-produce-use-waste** is inadequate to address pressing climate change threats, resource limitations, inclusive progress.
- Increased economic activity and increased dependency on imports: main factors driving solid waste generation.



<https://zerowasteyukon.ca/about/the-circular-economy/>

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TOWARDS A CIRCULAR ECONOMY

- Multisectoral proposal to move towards a **circular economy** as an alternative to address PR’s waste management problem.
- Address the “waste” crisis promoting a coherent and sustainable use of resources Puerto Rico discards today.





Circular economy

Decouple progress and discarded resources production

“A circular economy is one in which materials constantly flow around a ‘closed-loop’ system, rather than being used once and then discarded. The value of materials is therefore not lost when they are thrown away and the cost of waste management and disposal is avoided.

This system decouples resource use from waste and shifts to greater reusing, restoring and recycling...”

International Institute for Sustainable Development

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Not waste!

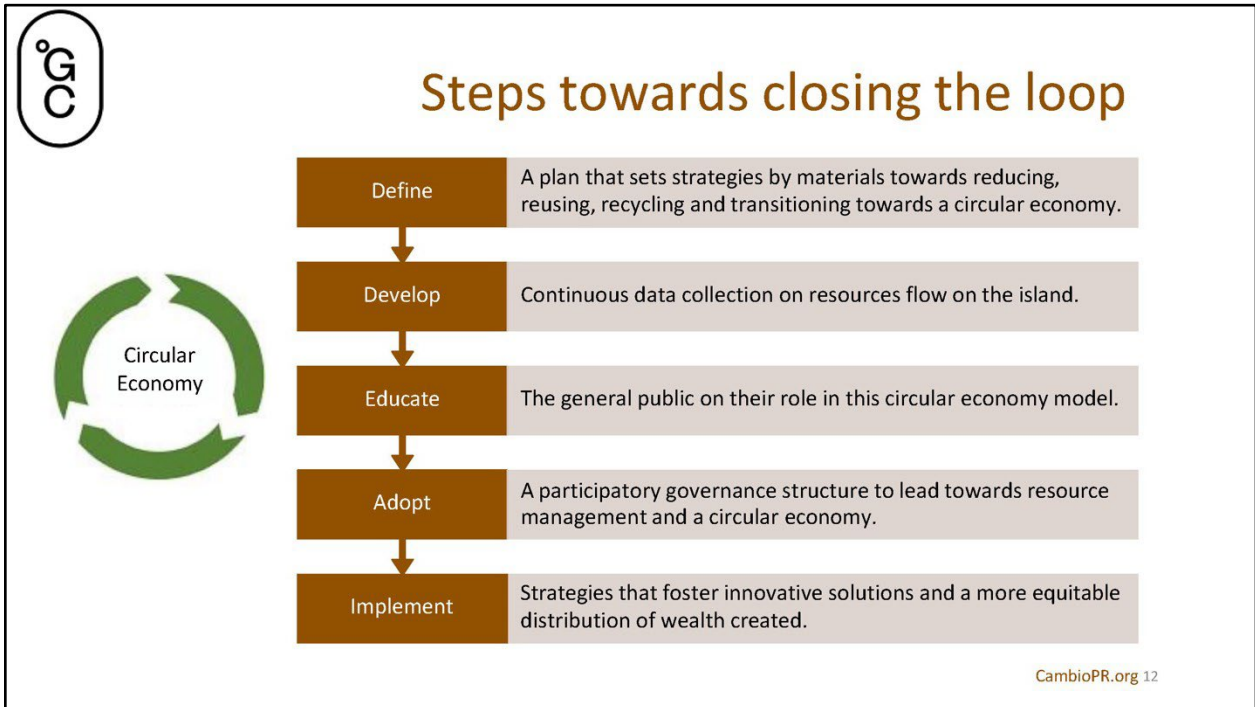
- Have to start by changing our view on what we call waste today.
- RESOURCE MANAGEMENT...this is not about fixing and tweaking, but about a **paradigm change** towards sustainability, inclusiveness and progress.

Material Reciclable	Dispuesto en SRS (Tons.)	Precio en el Mercado	Cálculo	Valor Estimado
Plastico	385,348.48	\$0.20 / lbs	(\$.20 x 2,000) 385,348.48	\$154,139,392.00
Papel	366,998.55	\$208 / Ton.	\$208 x 366,998.55	\$76,335,698.40
Cartón	341,308.65	\$150 / Ton.	\$150 x 341,308.65	\$51,196,297.50
Metal Ferroso	344,978.64	\$350 / Ton.	\$350 x 344,978.64	\$120,742,524.00
Metal No Ferroso	40,369.84	\$0.75 / lbs.	(\$.75 x 2,000) 40,369.84	\$60,554,760.00
Vegetativo	748,677.04	\$5 / yd ³	(0.2125 x 748,677.04) \$5	\$795,469.35
Vidrio	88,079.65	\$38 / Ton.	\$38 x 88,079.65	\$3,347,026.70
Valor total de los materiales reciclables dispuestos en SRS:				\$ 467,111,167.95

\$7.5 billion over the past 16 years (2007-2023)

Environmental Quality Board, 2007.

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Objectives



1. Divert or reduce, by 2028, 50% of waste currently reaching landfills.
2. By 2028, reduce the use of landfills, starting with the closure of those not in compliance.
3. Decrease generation of greenhouse gases in Puerto Rico to contribute to climate change mitigation.
4. Develop and maintain an updated database system on waste generation and management, as well as progress on the implementation of a circular economy.
5. Educate and expand the general public’s capabilities regarding waste management and the importance of individual responsibility in the reduction, reuse, and materials recycling.
6. Create at least 6,600 direct and indirect jobs related to comprehensive waste management within a circular economy model.

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GenC Progress

- Single-use-plastic ban on restaurants (effective June 2024).
 - GenC- working on education campaign at different levels.
- Draft legislation on new participatory governance structure.
- Developed platform/dashboard for data collection at municipal level.
- Supporting communities that want to adopt circular economy.
- Working with municipalities on materials management, support.

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Opportunities

- **Leverage PR's relevance** to US corporations and businesses in order to reduce materials used in products sold on the island (PR is the 4th most important US export market in the Americas & 16th in the world. Caraballo-Cueto, US Census Trades).
- Require businesses **take back materials** from products sold which they can reuse, recycle, repurpose.
- Promote **development of local businesses/manufacturing** to close materials loop, re-process materials (reuse and recycle for example) and innovate in the production of more sustainable materials.
- **Landfill ban on certain materials** like organics that represent almost 40% of volume.
- **Educate** to
 - reduce use of single use materials, discarded materials,
 - promote individual/community level initiatives such as composting and reuse
 - adequate materials handling.
- **Resources to municipalities** to implement separation at source, improved collection infrastructure to ensure efficient resource flow.

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Threats

- \$40 million awarded by EPA to DNER
 - Federal funds being used to develop plans relying on old model - no participation thus far.
 - Generación Circular is a multisectoral plan developed by experts, communities and organizations...why not build on that?
- Government relying on same structure that has failed all prior recycling objectives and has led to continuous corruption schemes.
- Renewed interest from government in waste-to-energy.
- Other sectors (renewable energy, manufacturing, housing) have not incorporated a circular economy approach, thus increasing stress on discarded resource management.

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Waste management is an environmental and a generational justice imperative. Islands are already the most vulnerable to climate effects and the linear construction of resource management creates additional pressures and vulnerabilities.

It is our moral obligation to correct failed policy, challenge traditional models, prioritize accountability and shift powers to enable systemic transformation.

www.generacioncircular.org

www.cambiopr.org



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Puerto Rico Community Panel

COMMUNITY DRINKING WATER SYSTEMS

Carmen Villanueva, Puerto Rico por el Derecho de una Vivienda Digna

Miriam Matos, Buenos Aires Community Drinking Water System

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**MIRIAM MATOS DIAZ
Y
CARMEN VILLANUEVA CASTRO**

**ACUEDUCTOS COMUNITARIOS
REALIDAD, RETOS Y RESPUESTAS**

**MIÉRCOLES 26 DE JULIO DE 2023
US ENVIRONMENTAL PROTECTION AGENCY
(EPA)
PRESENTACION ANTE LOS MIEMBROS DEL
NATIONAL ENVIRONMENTAL JUSTICE
ADVISORY COUNCIL (NEJAC)**



(Acueducto Río Prieto, 2022)

1

REALIDAD

Puerto Rico en menos de 5 años y enfrenta una crisis económica permanente de más de una década y que nos mantiene ante el mundo como uno de los países con más desigualdad, nos hemos enfrentado a huracanes catastróficos, la renuncia solicitada por el pueblo a un gobernante, terremotos, la pandemia mundial del COVID 19 y lo acelerado de los efectos del Cambio Climático.

REALIDAD

Puerto Rico recibe unas 70 pulgadas de agua de lluvia que es alta en comparación con otras regiones

Produciendo más reservas de agua per cápita

Cuenta con más de 1,500 cuerpos de agua

REALIDAD

En respuesta a las inacciones gubernamentales y a la ineficiencia de proveer el agua a sus ciudadanos las comunidades asumieron el rol de la autogestión desde décadas antes de los años 70, creando su propio acueducto que consistían en hincar pozos o colección de recursos superficiales como quebradas, ríos, manantiales, entre otros.

Hoy contamos en Puerto Rico con sobre más de 240 comunidades que dependen del uso de acueductos comunitarios para proveer agua potable a más de 100,000 residentes. Estos sistemas son autónomos y sin tener asistencia del gobierno o instituciones privadas.

REALIDAD

Los sistemas de acueductos comunitarios son definidos como aquellos que proveen agua para el consumo humano a por lo menos 25 personas o a 15 conexiones de servicio. Por mi experiencia estoy segura de que existen miles adicionales de personas que dependen de acueductos comunitarios, pero quedan fuera por la definición que imponen las agencias.

QUE HACE UN SISTEMA DE ACUEDUCTO

- IDENTIFICA FUENTE DE AGUA (SUPERFICIAL Y SUBTERRANEA)
- ALMACENAMIENTO
- TRATAMIENTO O MANTENIMIENTO
- DISTRIBUCION

REALIDAD

- Proveen agua a un 5% de la población de la isla promedio (100,000 a 150,000) en comunidades aisladas a través de todo el archipiélago

- 68% obtienen el agua de fuentes subterráneas y 32 % obtienen el agua de fuentes superficial

- Sistemas operados, por gravedad, energía eléctrica o fuentes solares

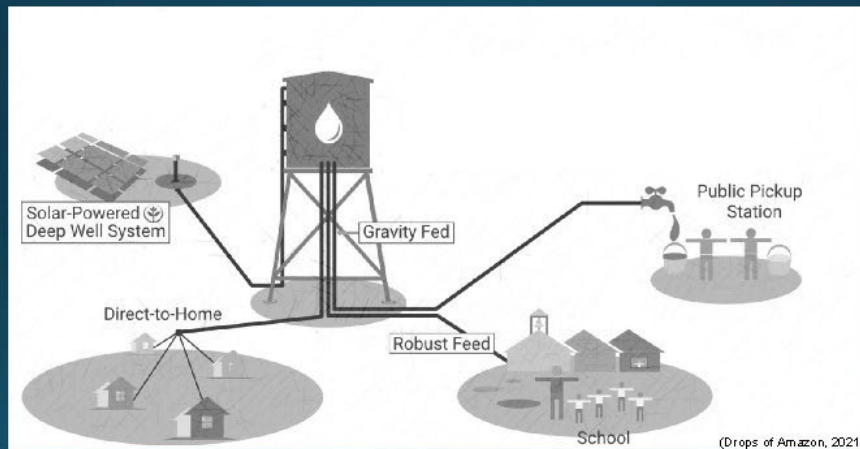
Mas del 50% no cumplen con los niveles de poteabilidad osea que existen muchos ciudadanos y ciudadanas que no tienen justicia

5



(Acueducto Los Pagan, 2022)

¿Qué es un acueducto comunitario?



3



(Acueducto Rio Chiquito, s.n)



(Acueducto Rio Prieto, 2022)

4

ACUEDUCTO COMUNITARIO BUENOS AIRES EN CAGUAS

17



(Acueducto Buenos Aires, 2021)

ACUEDUCTO COMUNITARIO BUENOS AIRES

- Localizado entre dos fincas privadas
- Fuente subterránea pozo a 500 pies bajo tierra
- Genera 63 galones por minuto
- Suple a 71 familia que promedian 300 residentes
- Placas Solares 48 provistas por Water Mition y dos baterías TEXLA, luego se añadieron 4 adicionales con el apoyo de Fundación Comunitario

Organizado como una corporación sin fines de lucro con una junta de directores totalmente de residentes de la comunidad

Su operación se divide en lo organizacional y lo operacional

Provee servicios sociales a sus residentes, ayuda a envejecientes, su espacio se usa como centro de acopio, distribución de alimentos ente otros

En total cumplimiento luego de muchos años sin estarlo.

Muchos de los sistemas actualmente no cumplen con los estándares de calidad de agua



¿ Cuáles son los retos para estar en cumplimiento ?

Permiso para la extracción de agua – Franquicia Departamento de Recursos Naturales

Pruebas químicas requeridas – Departamento de Salud y Departamento de Recursos Naturales

Informes de Cumplimiento - Departamento de Recursos Naturales

Informes Financieros – Departamento de Hacienda (Planillas anuales e informe de exención contributiva), Departamento de Estado (Planilla Anual)

Algún tipo de estructura organizativa (corporación, cooperativa u otra que sea especial para dicha estructura)



¿Cómo respuestas por qué y para que nace OSAN?

- 66 afiliados
- Plan de trabajo
- Visibilizarían de los problemas de todos los acueductos
- Constituirse en una fuerza y recurso de apoyo como organización de los sistemas “Non Prasa” de Puerto Rico



OSAN

Organización Sistemas
Acueductos “Non Prasa”
de Puerto Rico, Corp.
**FORTALECIENDO LA
GESTIÓN DE AGUA
RURAL
DE
PUERTO RICO**

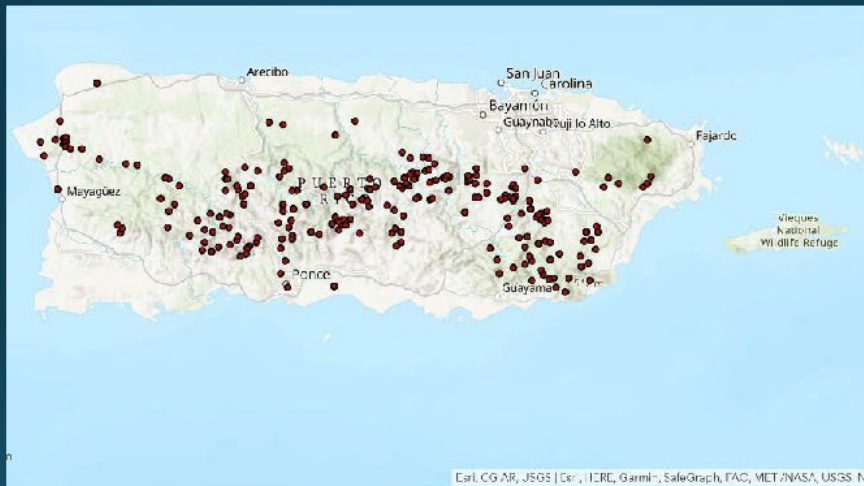


PRODEV


Puerto Rico por el
Derecho a una Vivienda
Digna, Corp
**FOMENTAR LA
PARTICIPACION ACTIVA
DE LAS COMUNIDADES
EN LA TOMA DE
DESICIONES PARA
ASEGURAR EL BIENESTAR
DE SUS RESIDENTES**




¿Dónde están los acueductos comunitarios?





¿Dónde está Puerto Rico?

- 

Una recesión económica de más de 14 años y una deuda impagable del gobierno sin consecuencia

PROMESA desde 2017 (Junta de Control Fiscal de Supervisión, designada por el Senado y el presidente de los EE. UU.)
- 

Un nivel inmanejable de burocracia gubernamental como resultado de la ineficiencia para atender las necesidades de los ciudadanos
- 

La migración al exterior y el cambio demográfico en las reducciones en la población general de la isla y un aumento en el envejecimiento
- 

Nivel de pobreza

Descuido de la red eléctrica y la dependencia de los combustibles fósiles

Alto nivel de desconfianza en el sistema gubernamental por el aumento de casos de corrupción sin consecuencia para devolver los recursos.

8

¿Dónde están los acueductos comunitarios ?

Noticias

SECCIONES +

EN PUERTO RICO

Acueductos comunitarios facilitan el acceso al agua potable

Unas 120,000 personas en la isla se beneficiarán de acueductos comunitarios; conoce más sobre estos esfuerzos en el cuarto episodio del podcast "Hacia un Puerto Rico sostenible e inclusivo", presentado por Luis Alberto Ferré Rangel

miércoles, 5 de octubre de 2022 11:00 a.m.
Por Lizznirashka M. Pérez Rivera



formalizar los acueductos comunitarios

7 de septiembre 2022

Por  Rafael R. Díaz Torres

Además de los 242 acueductos comunitarios reconocidos por el Gobierno, existe un número indeterminado de estos sistemas que operan de manera informal. Aunque el Departamento de Recursos Naturales y Ambientales firmó una amnistía para que los acueductos informales legalizaran su situación, ninguno se acogió a ella.



ES NOTICIA

ANÚNCIATE CON NOSOTROS

Acueductos comunitarios

GOBIERNO / PORTADA / FLECCLES / SALUD

Enfrentan trabas los acueductos comunitarios para recuperarse del huracán María

Redacción Es Noticia | P. SUBARRE EN JULIO 27, 2022



¿Dónde están los acueductos comunitarios?

7

- Ubicación de las comunidades bajo nivel de pobreza y bajo niveles de educación formal
- Falta de transportación colectiva
- Mayoría de residentes de tercera edad
- Falta de interés de jóvenes
- Burocracia (múltiples oficinas manejando diferentes aspectos de los acueductos)
- Altos costos de la administración (pruebas, informes y requerimientos gubernamentales)
- Falta de entendimiento de las agencias y la población general sobre la problemática
- Mas del 50% no realizan ningún tipo de tratamiento ni realizan muestras al agua (dificulta el no tener un censo de los que no están registrados)

¿Dónde están los acueductos comunitarios?

- El 8.1% no cuentan con un operador para el sistema.
- Los abonados no pagan por el agua consumida
- Vulnerabilidad Ambiental
- Diseño del sistema de acueducto depende del conocimiento informal de la propia comunidad
- La falta de registro no permite determinar la extracción de aguas que se realiza en PR
- Dependencia de sistemas de combustibles fósiles (energía eléctrica)
- Falta de la posibilidad de acceder a recursos financieros
- Transferencia de conocimiento generacional

9

¿Dónde están los acueductos comunitarios ?

- Falta de documentos importantes, titularidad clara de los terrenos, registros entre otros
- Constante problemas con las tuberías
- Falta de alternativas de energía para continuar operación
- Distancia del acueducto por caminos no pavimentados
- Apatía a participar en reuniones y usar plataformas virtuales por la falta de acceso a internet

11



RESPUESTA

- Actualización y uniformidad en los registros del total de los acueductos comunitarios y que exista un espacio público y accesible para el público general de accederlos
- Aumentar el cumplimiento y distribución equitativa entre los ciudadanos y el gobierno (pago de las pruebas)
- Creación fuentes de fondos permanentes para apoyar el manejo de la administración
-
- Modernización de la infraestructura
- Disminución de la dependencia de la energía eléctrica por energía alternativa (solar)
- Aumentar el junte de líderes a través de la afiliación a OSAN
- Cambios en las políticas públicas tanto federales como estatales

13

RESPUESTA

- Participación como parte de la toma de decisiones de los líderes de los acueductos en la distribución y fiscalización de fondos en las agencias locas y federales relacionadas a la operación de los mismos
- Incluir a los acueductos como infraestructura crítica y un bien común
- Mentoría para aumentar las capacidades de las comunidades en organización y administración.
- Visibilizar a través de los medios de comunicación la importancia de los acueductos comunitarios y su aportación a la población general.

16



Abogar hasta lograr Acción

RESPUESTAS EN ABOGACIA

- Ley 81 del 2022 antes el P. S 694 Ley para la Conservación, Desarrollo y Uso de Recursos de Agua”, a los fines de adicionar entre los integrantes del Comité de Recursos del Agua a representantes de los sistemas de acueductos Non-PRASA- Departamento de Recursos Naturales reconocer el derecho de libre acceso a las agencias, corporaciones, departamentos, instrumentalidades o municipios del Estado Libre Asociado de Puerto Rico, así como a los administradores, encargados, operadores o representantes de estos sistemas de acueductos para realizar pruebas de calidad de agua, inspecciones, labores de mantenimiento o mejoras y obras de infraestructura; establecer multas contra quienes impidan u obstruyan el libre acceso a estos sistemas e instalaciones.
- Orden Administrativa Departamento de Recursos Naturales - La Ley Núm. 136 de 3 de junio de 1976, conocida como Ley para la Conservación, el Desarrollo y Uso de los Recursos de Agua en Puerto Rico, según enmendada (en adelante, “Ley 136”) dispone en su Artículo 5 (j) que el Secretario de Recursos Naturales y Ambientales (en adelante, “Secretario”), tiene la facultad de: “Establecer un sistema de permisos y franquicias para el uso y aprovechamiento de las aguas y cuerpos de agua de Puerto Rico y fijar los derechos a cobrar en cada caso.” Esta establece una amnistía para el pago de dicha franquicia requerida para la extracción.

RESPUESTAS EN ABOGACIA

- P. C 298 Laboratorio Ambiental de Recursos Naturales Ley 416-2004, Pruebas gratis para los Non-Prasa realizadas por el gobierno.
- P.C 943 Ley del Centro de Coordinación de Excavación y Demolición de Puerto Rico – Eliminación del pago de franquicia de agua a los sistemas Non – PRASA por hacer sus tuberías. Departamento Obras Públicas

Agradecidas tanto Miriam como esta servidora por permitir este espacio para poder sostener un dialogo que permita adelantar la verdadera justicia espacialmente para quienes necesitan acceder al agua potable.

Puerto Rico Community Panel

CLEAN WATER INFRASTRUCTURE AND THE CAÑO MARTIN PEÑA EXPERIENCE

Mario Nuñez, Director, Proyecto ENLACE
del Caño Martin Peña

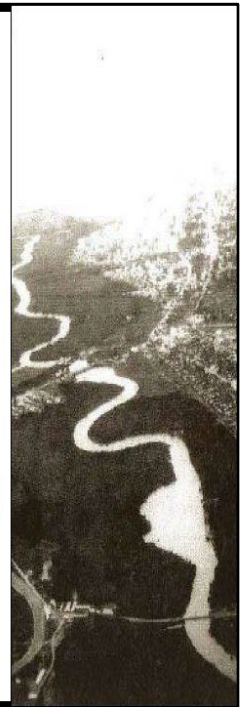
Lucy Cruz, President, G-8 (Group of the 8
Communities of the Caño Martin Peña)

179

G8 20 años

Grupo de las Ocho Comunidades Aledañas al Caño Martín Peña

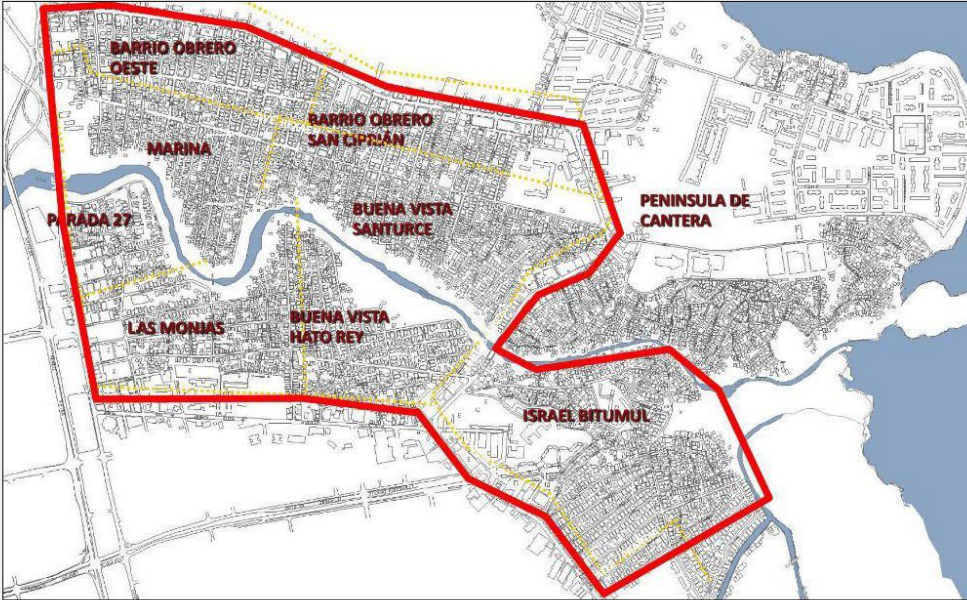
The logo features a central graphic with a yellow sun, a blue river, and green hills with yellow houses. The text 'G8 20 años' is prominently displayed. Surrounding the central graphic are eight circular logos representing the member communities: ARREDORESTO, RUBOMI, JUNTA DE RESIDENTES DE BUENA VISTA SANTURCE, INC., PDA 27 INC., ASOCIACION DE RESIDENTES LAS AGUILAS, INC., ASOCIACION BUENA VISTA FLORECE, INC., and JUNTA DE RESIDENTES DE BUENA VISTA SANTURCE, INC.



EL CAÑO MARTÍN PEÑA



PLAN DE DESARROLLO INTEGRAL



¿QUÉ ES EL G-8?

GRUPO DE LAS OCHO COMUNIDADES ALEDAÑAS AL CAÑO MARTÍN PEÑA

Somos una organización sin fines de lucro, organizada en 2002 e incorporada el 28 de junio de 2004.

La misma reúne al liderato comunitario de doce (12) organizaciones de base comunitaria, cívicas y recreativas que se encuentran en cada una de las ocho comunidades aledañas al Caño Martín Peña.



Misión: Promover el interés y la participación activa, efectiva y afirmativa de las/los residentes de cada una de las ocho comunidades aledañas al Caño Martín Peña

Visión: Mantener una comunidad unida, segura y próspera, modelo de convivencia autogestionaria en el Corazón de San Juan.



PROCESOS DE PARTICIPACIÓN CIUDADANA

G-8 y las Juntas Comunitarias:

- Celebración de Asambleas Comunitarias bianuales para elección de nuevos miembros.
- Logrando tener más de 100 líderes voluntarios entre jóvenes y adultos.
- Fortalecimiento constante del Liderato
- Educación Continua y fomentando el Pensamiento Crítico



EL CAÑO MARTÍN PEÑA



LEY 489 DEL 2004

La Ley Núm. 489 del 24 de septiembre de 2004, según enmendada, conocida como la **Ley para el Desarrollo Integral del Distrito de Planificación Especial del Caño Martín Peña**, reconoce al G-8 Inc. Como la entidad que une las organizaciones de base comunitaria aledañas al Caño Martín Peña.

Mediante el G-8 Inc. las organizaciones y asociaciones que lo conforman participan de forma activa y efectiva en los procesos de toma de decisiones sobre la rehabilitación y revitalización del Distrito de Planificación Especial del Caño Martín Peña.



PROYECTOS & PROGRAMAS

Bici Caño

- Se ofrecen recorridos desde una perspectiva histórica y social por las comunidades aledañas al Caño Martín Peña.

Periódico Raíces

- Informamos sobre los acontecimientos de la comunidad desde una perspectiva crítica y pro-comunidad.

Huertos Comunitarios

- Rescatamos espacios para huertos comunitarios con el fin de educar sobre la salud, la tierra y la sustentabilidad.



PROYECTOS & PROGRAMAS

REDES del Caño

- REDES cuenta con más de 100 miembros quienes son residentes del Caño Martín Peña. Vecinos/as que dan apoyo a las Junta Comunitarias sirviendo como una red de comunicación a través de las comunidades.

Proyecto Educativo de Liderazgo y Transformación Social

- Promovemos el pensamiento crítico mediante un énfasis pedagógico concentrado en temas sobre la comunidad, transformación social, derechos humanos y responsabilidad.



PROYECTOS & PROGRAMAS

Techos para el Caño

- Programa creado para restaurar / construir techos a residentes que perdieron el mismo durante el Huracán María. (105 techos)

Alfabetización de Adultos

- Brindamos apoyo en este programa que busca el empoderamiento y la autogestión a través de la alfabetización.

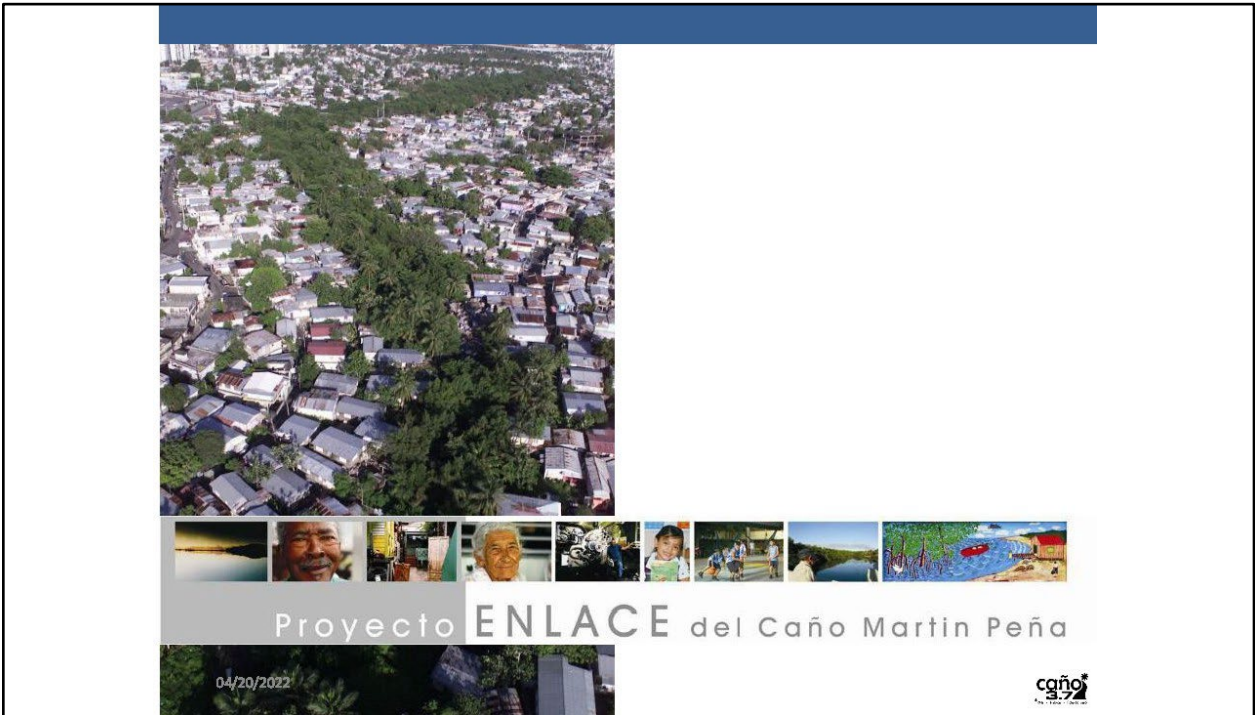
Tertulias o Universidad del Barrio

- Proveemos un espacio de reflexión mediante la discusión de temas socio políticos para el desarrollo de la participación democrática.



VIAJE A OTROS PAISES





PROYECTO ENLACE DEL CAÑO MARTÍN PEÑA

Corporación del Proyecto ENLACE del Caño Martín Peña



Coordinación e implementación del Plan de Desarrollo Integral, Copatrocinador no federal del PRE-CMP, Corporación pública

Grupo de las Ocho Comunidades Aledañas al Caño Martín Peña, Inc.



Participación comunitaria activa, empoderamiento y involucramiento comunitario Organización sin fines de lucro

Fideicomiso de la Tierra del Caño Martín Peña



Modelo novel para promover el Desarrollo de las comunidades previniendo su desplazamiento, 2015-16 Premio Habitat Mundial ONU Organización sin fines de lucro

PARTICIPACIÓN CIUDADANA • JUNTA ASESORA • ALIANZAS & COLABORACIONES • GOBIERNO

PLAN DE DESARROLLO INTEGRAL Y USOS DEL TERRENO DEL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA – LEY NÚM. 489 DE 2004, SEGÚN ENMIENDADA

4/20/2022



33%

del total de hectáreas de los manglares de Puerto Rico se encuentran en el Estuario de la Bahía de San Juan.

8

especies animales en peligro de extinción

17

especies de plantas en peligro de extinción

160

especies de aves

19

reptiles y anfibios

124

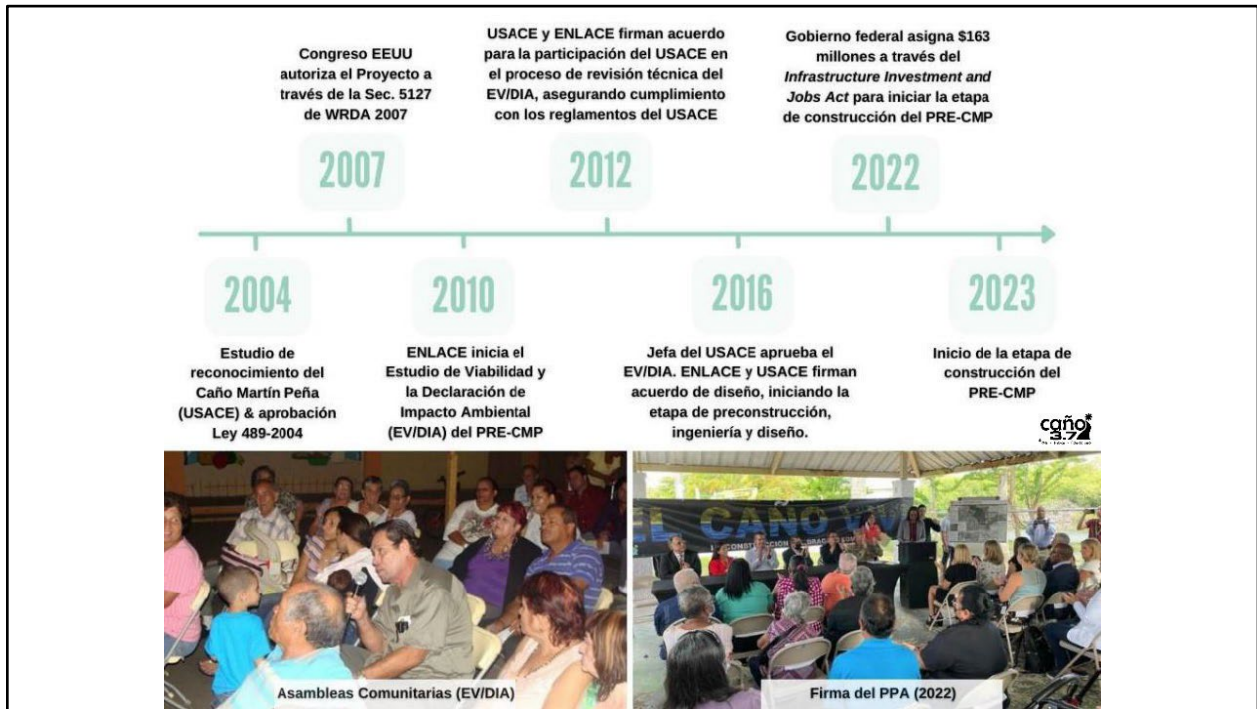
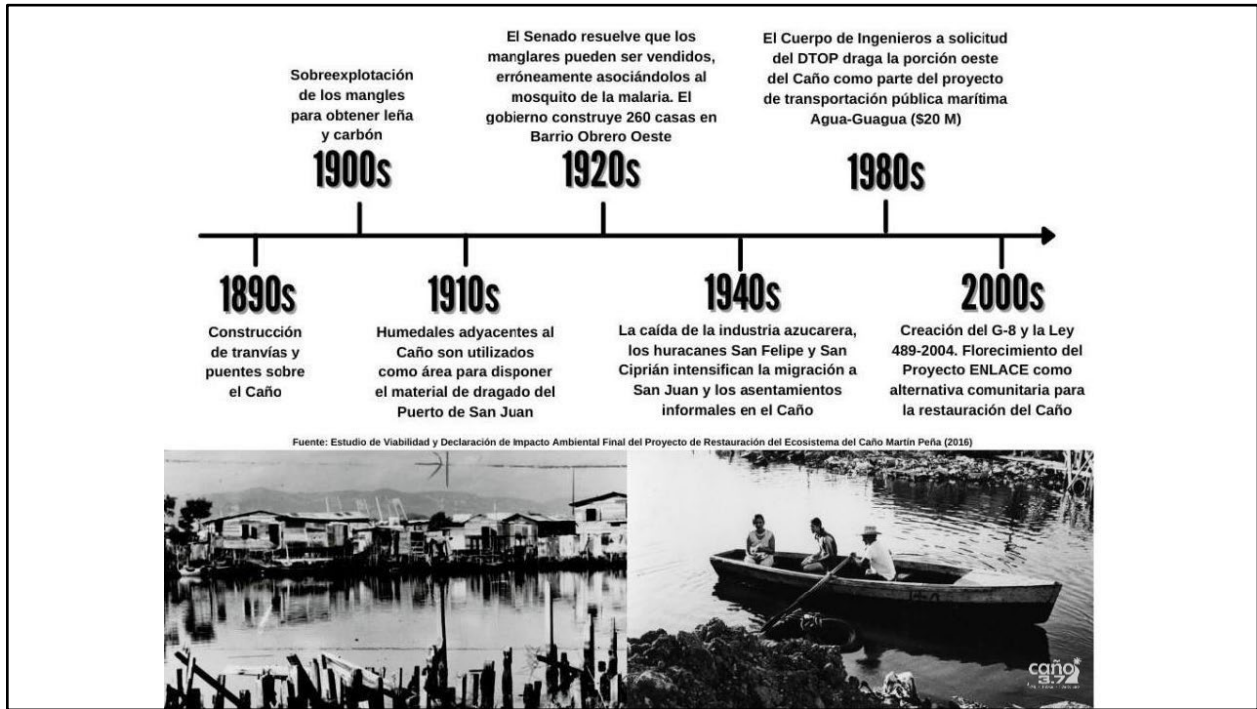
especies de peces

300

especies de plantas de humedales

Fuente: Programa del Estuario de la Bahía de San Juan, www.estuario.org





Asambleas Comunitarias (EVIDIA)

Firma del PPA (2022)



LISTO EL ACUERDO PARA COMENZAR LOS TRABAJOS

Una realidad el dragado del Caño Martín Peña

● El Cuerpo de Ingenieros, la Corporación del Proyecto ENLUCE del Caño Martín Peña y el Departamento de Recursos Naturales y Ambientales firmaron el acuerdo de asociación que da inicio a la restauración del ecosistema, un momento que han esperado por décadas las comunidades del G-8, que bordean ese cuerpo de agua

● Mientras, el administrador de la Agencia Federal de Protección Ambiental, Michael Regan, escuchó de primera mano las luchas de comunidades desventajadas y con problemas de contaminación, cuyos líderes reclamaron un mayor compromiso de esa dependencia

PUERTO RICO HOY PLANUS 818

Source: El Nuevo Día



PLAN DE DESARROLLO INTEGRAL Y USOS DEL TERRENO DEL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA



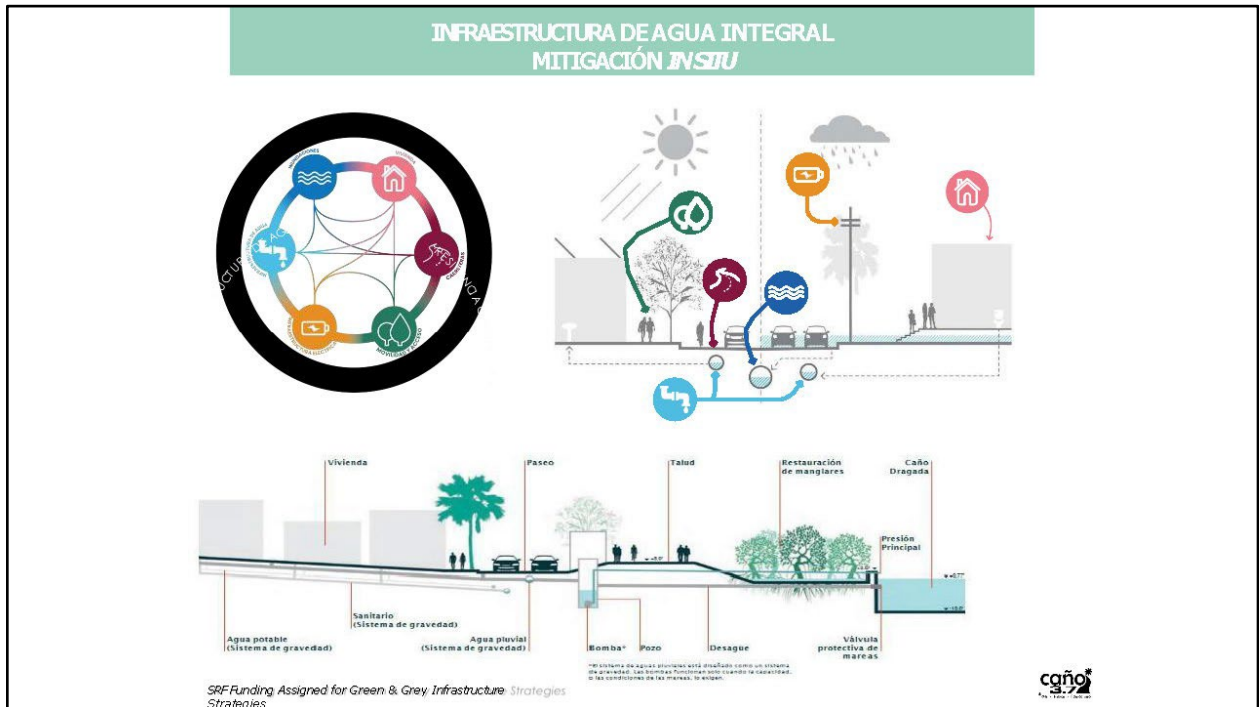
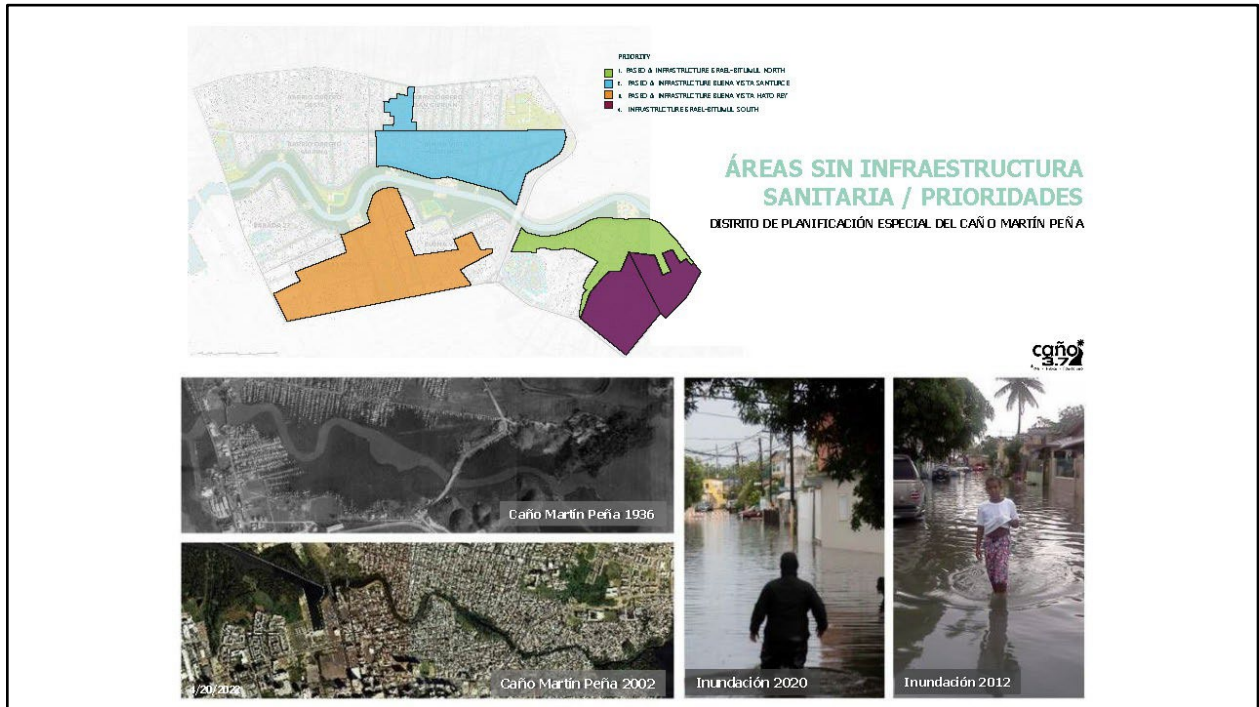
PLAN DE DESARROLLO INTEGRAL Y USOS DEL TERRENO PARA EL DISTRITO DE PLANIFICACIÓN ESPECIAL DEL CAÑO MARTÍN PEÑA

PREPARADO POR: AUTORIDAD DE CARRETERAS Y TRANSPORTACIÓN
DEPARTAMENTO DE TRANSPORTACIÓN Y OBRAS PÚBLICAS

4/20/2022

Miembro del "Urban Waters Federal Partnership"

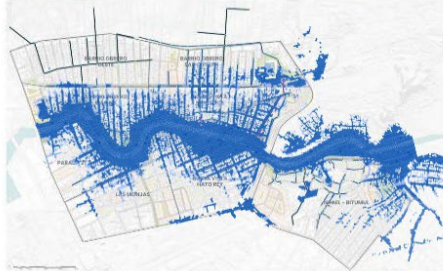




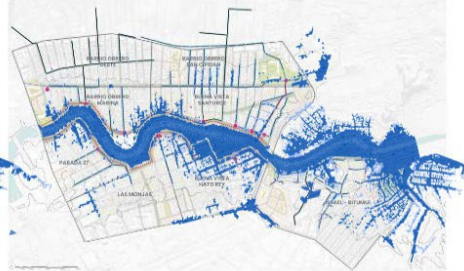


Plan Maestro de Infraestructura Integral en el Caño Martín Peña
 Resultados del análisis de hidrología e hidráulica

DRENAJE CON AUMENTO EN EL NIVEL DEL MAR:



BERMA PROPUESTA, BOMBAS & SISTEMA DE DRENAJE CON AUMENTO EN EL NIVEL DEL MAR:

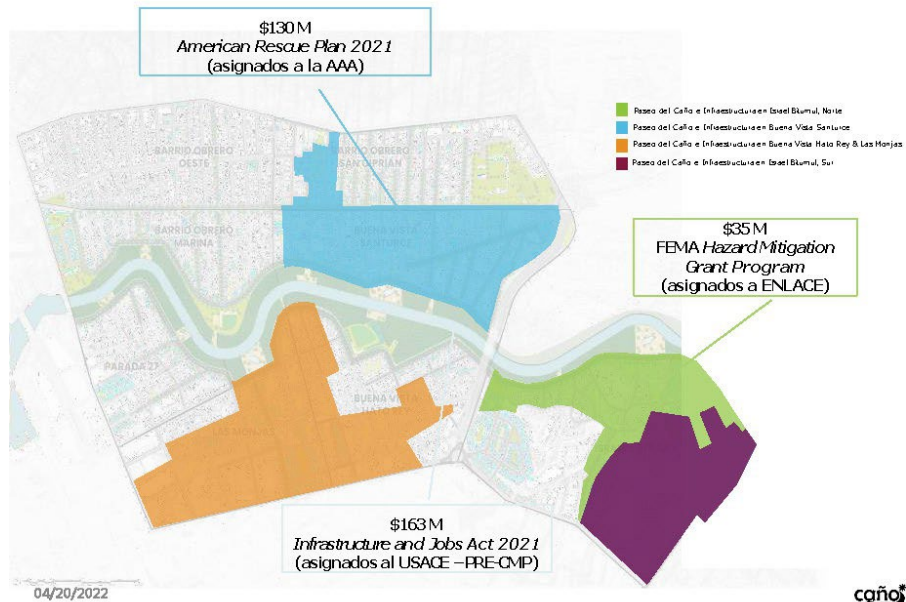


- LEYENDA**
- EXCESO DE AGUA
 - PROYECTADO
 - DISEÑO
 - BOMBA DE GRAVEDAD
 - PUERTE PRINCIPAL
 - BOMBA
 - TALUD
 - EVENTO DE INUNDACIÓN DE 25 AÑOS
 - EVENTO DE INUNDACIÓN DE 100 AÑOS

4/20/2022



FINANCIAMIENTO ASIGNADO A LA FECHA (2023)



04/20/2022





Grid of 12 community programs:

- Huertos comunitarios
- Alfabetización
- Prevención de violencia
- Diseño participativo
- Líderes Jóvenes en Acción
- Conciencia ambiental
- Reciclaje comunitario
- Huertos escolares
- Apoyo liderado por comunidades
- Iniciativas de Salud Pública
- Pensamiento crítico
- Incubadora de empresas

Sobre 30 programas para el desarrollo socio económico impactando a sobre 1,500 residentes anualmente de todas las edades

4/20/2022



Infomación de contacto

Mario Núñez Mercado
Director Ejecutivo
Corporación del Proyecto ENLACE del Caño Martín Peña
✉: mnunez@martinpena.pr.gov
☎: (787) 729-1594

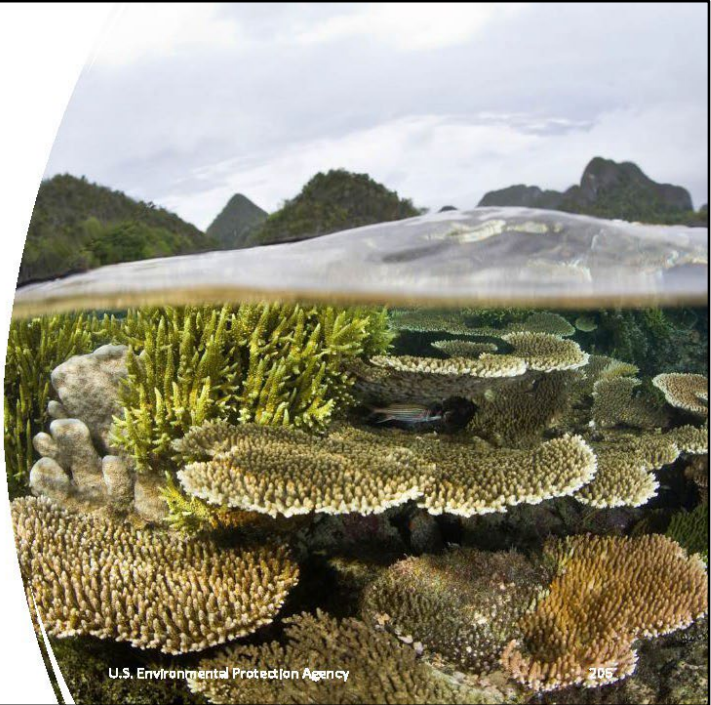
caño 3.7
g-8 • enlace • fideicomiso

10/2021

Questions
& Answers
Puerto Rico
Community Panel

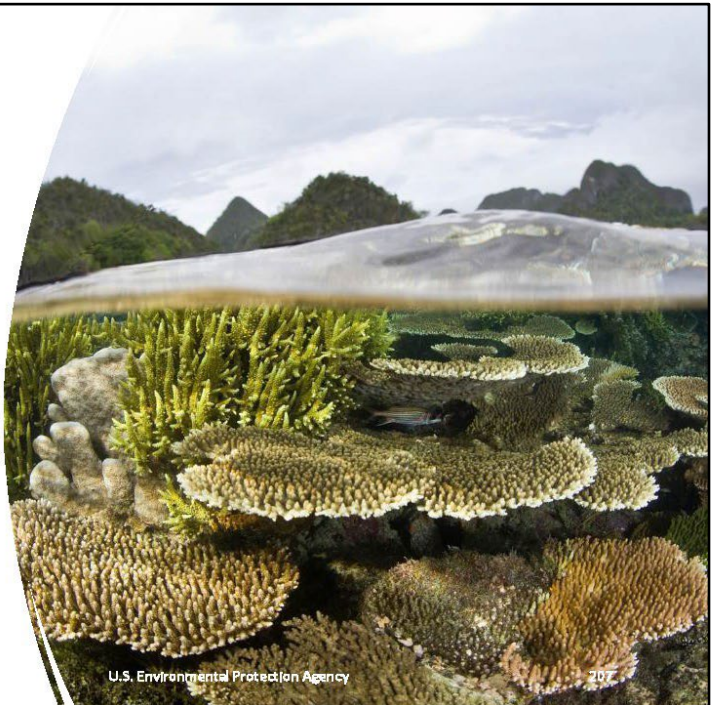
U.S. Virgin Islands Community Panel

Frandelle Gerard, Director,
Crucian Heritage and
Nature Tourism, Inc.



U.S. Virgin Islands Community Panel

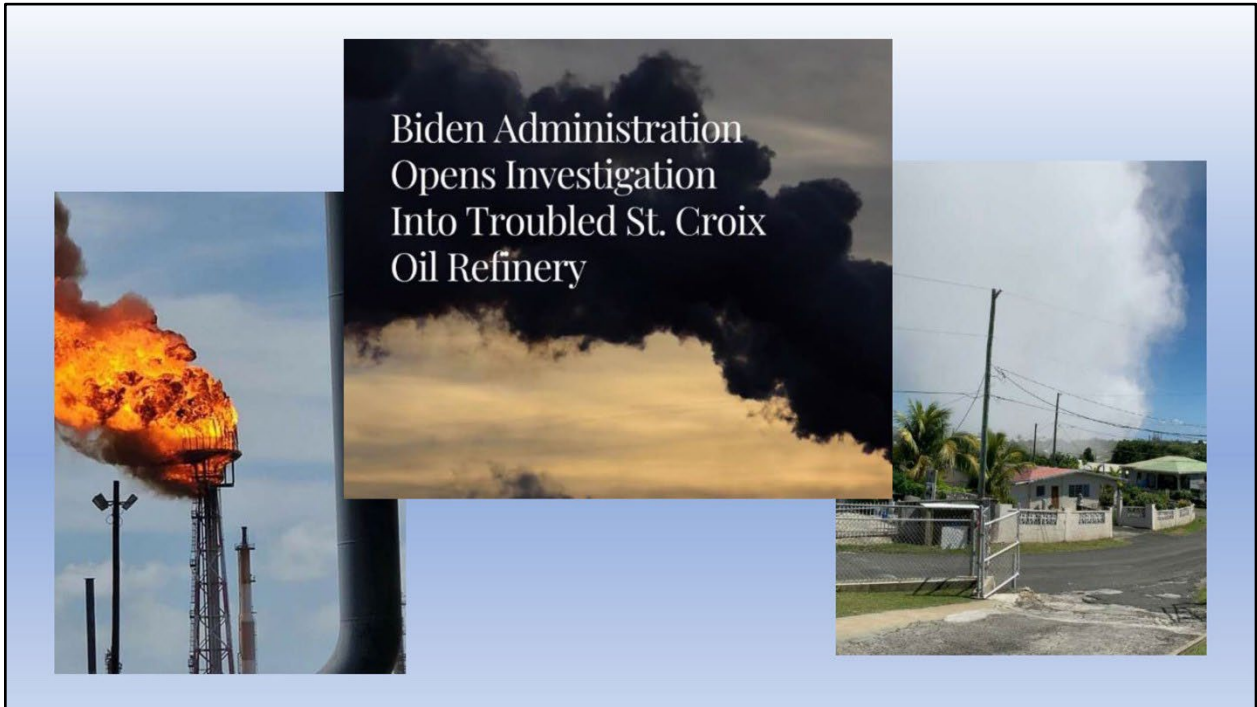
Deeana James, President,
St. Croix Foundation for
Community Development

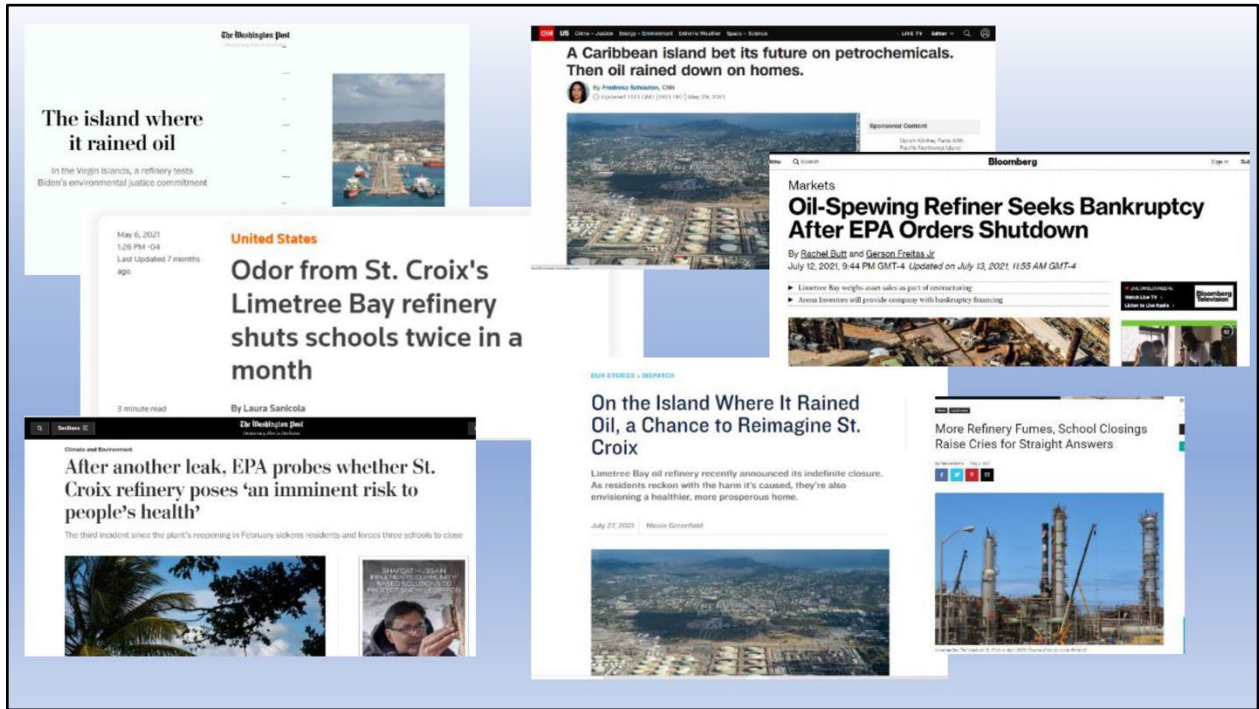


St. Croix Environmental Association

Jennifer Valiulis, Executive Director
Education, Conservation, and Advocacy







U.S. Virgin Islands Community Panel

Jennifer Valiulis, Executive
Director, St. Croix
Environmental Association



CRUCIAN HERITAGE AND NATURE TOURISM, INC.

Focusing on development from within, CHANT's heritage and nature tourism program and traditional building arts programs serve as an engine for sustainable economic development, and to promote and protect the built and natural environment of St. Croix and the Virgin Islands, contributing to a new era of increased broad-based prosperity and community pride.





CHANT Building Arts Institute

- Teaching Vernacular building arts in the territory
- Provides employment to young people in Frederiksted with barriers to employment
- Provides self-employment opportunities and entrepreneurial opportunities in art and craft
- Repurposes historical buildings for use as: Artist in residence, low-moderate income housing, art and historic corridor
- Addresses the critical condition of our historic town of Frederiksted. Immediate attention is needed to preserve remnants of Frederiksted's history and resiliency



COLLABORATION, COMMUNITY ENGAGEMENT & PARTNERSHIPS

- St. Croix Foundation Non-Profit Consortium
 - Environmental Sector - The environmental sector supports the protection, conservation, mitigation, and restoration of our island's natural and built resources. Helping to build environmental and community resilience, our chief goal is to reconnect Virgin Islanders with nature.
 - Collaborative Partners – St. Croix Environmental Association & Virgin Islands Good Food Coalition
- Building Blocks for Sustainable Communities
 - EPA Technical Assistance Grant – Leveraging Cultural Institutions
 - Partners – St. Croix Foundation, UVI Research & Tech Park, Department of Planning and Natural Resources
- EJ Collaborative Problem-Solving Grant



The environmental sector supports the protection, conservation, mitigation, and restoration of our island's built and natural resources; helping to build environmental and, in turn, community resilience, while reconnecting our community with nature.

St. Croix Foundation for Community Development Nonprofit Consortium Environmental Sector Partners





EPA/NEJAC Presentation – Grants Update & Opportunities for Feedback on Upcoming Environmental & Climate Justice (ECJ) Program Funding Opportunity

Alex Gallo, Special Advisor, OEJECR, U.S. EPA

Jerome Shabazz, Executive Director, JASTECH Development Services Inc. and Overbrook Environmental Education Center

April Karen Baptiste, Professor, Environmental Studies and Africana and Latin American Studies, Colgate University

Inflation Reduction Act Climate Action, Equity and Accountability Consultation Team

National Environmental Justice Advisory
Council (NEJAC)

Environmental and Climate Justice Program (ECJ) Listening Session Update

Office of Environmental Justice and External Civil Rights
Jerome Shabazz and Dr. April Baptiste

July 26, 2023

Consultation Team Membership

- Yvonka Hall
- Dr. Sandra Whitehead
- Richard Mabion
- Nina McCoy
- Sofia Owens
- Dr. Pamela Talley
- Brenda Torres
- Andy Kircun
- Aya Nagano
- Dr. Loren Hopkins
- Leticia Colon de Mejias
- Joy Britt
- Jerome Shabazz (co-chair)
- Dr. April Baptiste (co-chair)

EJC Working Group



Consultation Team Support

- Co-Chairs: Dr. April Baptiste and Jerome Shabazz
- With EPA support from:
 - Alexandra Gallo, ECJ Program Manager & Special Advisor, Office of Environmental Justice and External Civil Rights
 - Bruce Binder, Senior Policy Advisor, Office of Environmental Justice and External Civil Rights
 - Matthew Tejada, Deputy Assistant Administrator for Environmental Justice, Office of Environmental Justice and External Civil Rights
 - Paula Flores-Gregg, Federal Designated Officer, NEJAC

Setting the Context

- IRA consultation group was brought together as a one-time engagement to provide some initial feedback on what we want to achieve under the Environmental and Climate Justice (EJC) Program to benefit disadvantaged communities
- NEJAC members were invited to three virtual informational meetings in February/March
 - Volunteers then participated in the consultation team
- Feedback was sought on several different areas
- Meeting was held on March 20-21, 2023 in Washington, DC with about half of the members participating in person and half participating virtually
- Initial update was provided to NEJAC on March 29, 2023 in the virtual public meeting
- Today we will focus on the areas of substantive feedback, followed by hearing how that feedback is being taken into consideration by EPA



Inflation Reduction Act Climate Action, Equity and Accountability Consultation Team Feedback

Areas of feedback

- Content areas for the NOFO
- Process areas for the NOFO
- Capacity building for the NOFO
- Proposals for next steps

Content areas: Potential Projects

- Infrastructure related projects
 - e.g.: clean energy projects, and back up or solar power; large capital projects (designed to hire local, minority enterprises); water and wastewater treatment plants
- Resilient hubs/EJ centers in communities
- Workforce development
- Education programs
- Climate related projects
 - E.g. making homes resilient – retrofiting
- Direct investment into communities
 - E.g. investing in B-corps

Process areas

- Grant eligibility
 - Definition: community based non-governmental organization; partnership and sub-awardees
 - Characteristics and attributes of partnerships
- Application process
 - Flexibility needed for outputs
 - Flexible timeline
 - Taking a tiered approach
 - Transparency in the review process
- Barriers to grant access
 - Size of organization
 - Lack of technical support
 - Sub-awardee status for small NGOs
 - Indirect costs for some partner organizations
- Gaps

Capacity building

- Set up a TA center with webinars, in-person learning opportunities, match making, and office hours to answer questions such as about pollution.
- Conduct direct outreach to smaller organizations or those who have never received an EPA grant; schedule appointments to explain what is coming and how organizations can apply.
- Pair small organizations with a grant writer

Next steps

- Deeper dive into grants in general – getting to disadvantaged communities
- Helping communities apply for grants
- Creating a climate and energy workgroup

Grants Update & Opportunities for Feedback on the Upcoming Environmental & Climate Justice (ECJ) Program Funding Opportunity

2:00 – 3:30 PM ET (Update); 4:00 – 8:00 PM ET (Public Comment)

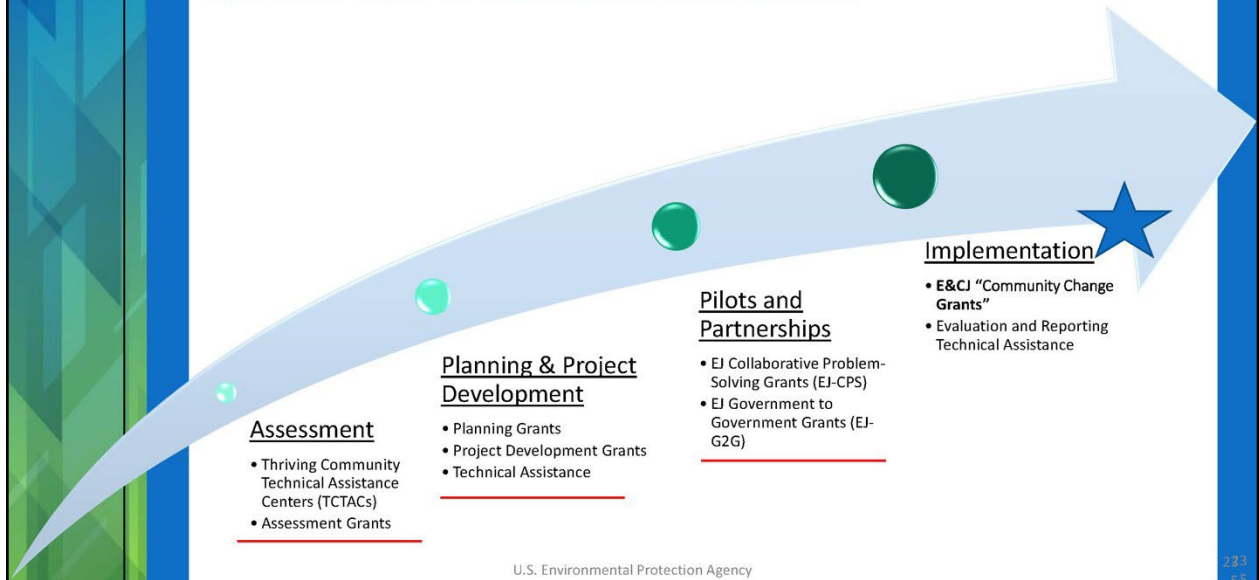
- **Dr. April Baptiste and Jerome Shabazz**, NEJAC IRA Accountability Consultation Team Chairs
- **Alexandra Gallo**, Special Advisor, Office of Environmental Justice and External Civil Rights
- **Bruce Binder**, Senior Advisor, Office of Environmental Justice and External Civil Rights

Agenda

- Environmental and Climate Justice Program Updates
- NEJAC IRA Accountability Consultation Team Updates
- Upcoming: Public Comment on the Environmental and Climate Justice Program design



GRANTS AND TECHNICAL ASSISTANCE



Overview of CAA Section 138 ECJ Program Requirements

- Allocated \$3 billion including \$2.8 billion for grants and \$200 million for technical assistance (TA)
 - Approximately \$2 billion available for forthcoming Notice of Funding Opportunity (NOFO) in 2023
- All grants must benefit disadvantaged communities as defined by the EPA Administrator
- Grants must be awarded by September 30, 2026 and completed within 3 years
- Grant eligibility limited to:
 - Community-based nonprofit organization (CBO)
 - Partnership of CBOs
 - Partnership between:
 - Indian tribe, a local government, or an institution of higher education and a CBO

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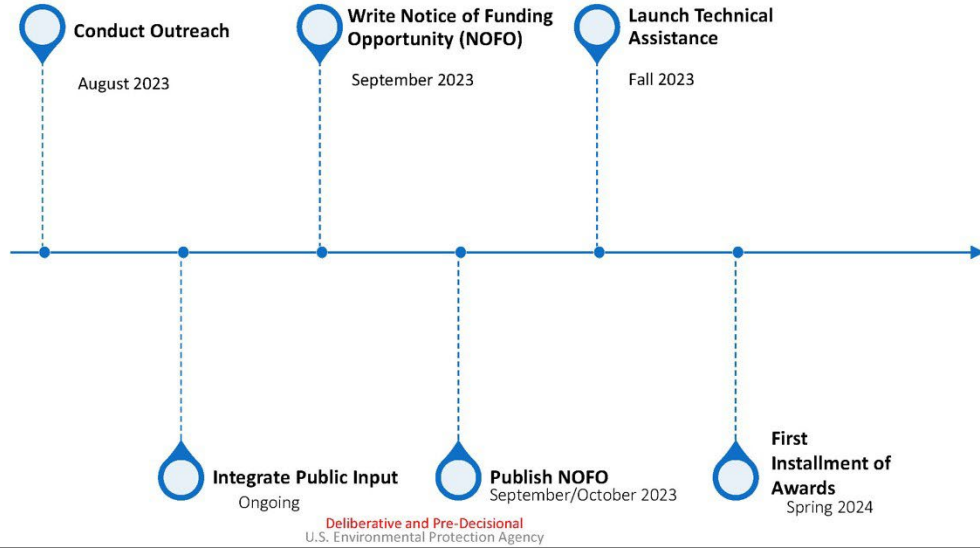
Overview of CAA Section 138 ECJ Program Requirements

- Grants for 5 types of activities including:
 - Climate adaptation and resiliency
 - Indoor air pollution, mitigating climate and health heat related issues
 - Pollution remediation and prevention
 - Workforce development tied to air pollution and greenhouse gas reductions
 - Facilitating engagement of disadvantaged communities in governmental processes
- Technical assistance available to eligible applicants/grantees related to grant activities

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Environmental and Climate Justice Program Timeline



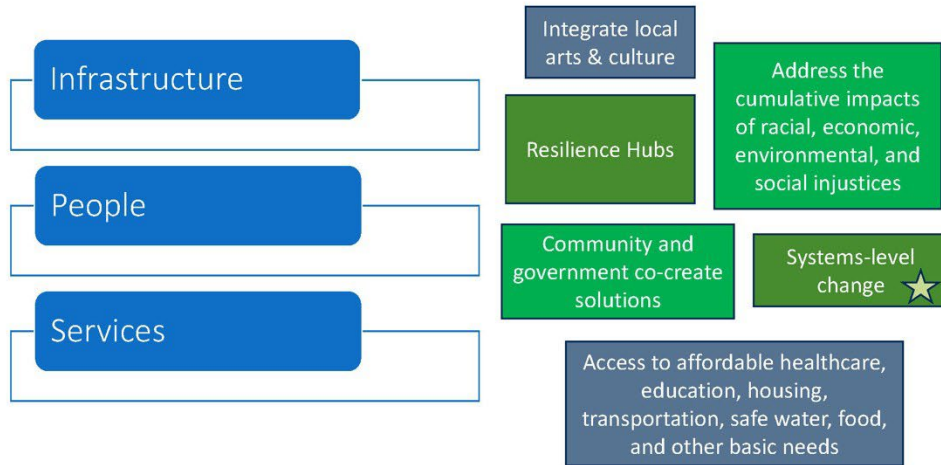
IRA Accountability Consultation Team

- Convened March 20 – 21, 2023 in Washington, DC
- 14 NEJAC members
- Discussed program vision, eligibility requirements, projects and strategies to be funded, community engagement techniques, technical assistance, evaluation and scoring criteria, and more for the \$2 billion NOFO to be issued



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Interim Program Framework



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Deliberative and Pre-Decisional
U.S. Environmental Protection Agency

**non-exhaustive list*

Interim Project Considerations

- Community Greening
- Enhanced Mobility (active transportation, transit, carshare)
- Sustainable Housing (energy and water resilience)
- Community Energy Resilience
- Community Health (Food access, parks, open space)
- Waste Reduction and Circular economy
- Indoor & Outdoor Air Quality
- Clean Drinking water
- Improved Wastewater Systems
- Address Hazardous Waste and Pesticides

- Public health
- Workforce training and job creation
- Life skills
- Environmental education
- Avoid displacement of existing residents
- Grantee and partnership training

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EQUITY IN GOVERNMENT

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Diverse and Flexible Application Options

- Flexibility to applicants to design the projects they want within certain programmatic parameters
- Two complimentary grant categories with different award sizes and different goals/objectives
- Approach will offer opportunities for partners of different sizes and capacity to benefit from the award and help disadvantaged communities
- 12-month rolling application process that applicants can access when ready and resubmission opportunities
- Transparent scoring and external reviewer opportunities

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Existing challenges

- 3-year implementation time frame will impact project criteria
- Some administrative and contractual challenges brought forth by the NEJAC IRA Accountability Consultation Team cannot be directly addressed because of legal, regulatory, and policy reasons
- Technical assistance must be related to applying to or for implementation of the grant awards

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How can I prepare for this funding opportunity?

- Find your partners – eligibility is not changing!
- Build your coalitions
- Identify meaningful transformative projects implementing strategies to help address environmental and climate justice concerns within 3 years (larger award sizes, up to \$20M)
- Identify governmental policies and programs that can be improved with community voices (smaller award sizes)
- Stay up to date with Environmental and Climate Justice Program funding opportunities
- Become familiar with federal mapping tools
 - Climate and Economic Justice Screening Tool (CEJST)
 - Environmental Justice Screening Tool (EJ Screen)

Upcoming Listening Sessions on the Environmental and Climate Justice Program Design

Listening Session	Location	Date and Time
Territories: Puerto Rico and Virgin Islands NEJAC Public Comment Period on the Environmental and Climate Justice Program Design	Hybrid, submit written comments on NEJAC Website	Live: 7/25-7/27 Written: submit through 8/9/23
Tribes: Federally Recognized Tribal Governments, Alaskan Native Villages, Tribal Community Representatives, and more	Virtual, visit ECJ Program Website	8/3/23 1:30-3:30pm EDT
Territories: American Samoa	Virtual, visit ECJ Program Website	8/8/23 5:00pm SST
Territories: Guam, CNMI	Virtual, visit ECJ Program Website	8/9/23 5:00pm GMT+10



Public Comment on the Environmental and Climate Justice Program Design



Public Comment - Environmental & Climate Justice Program Funding Opportunities

What infrastructure projects & capacity building activities provide the most beneficial impact within Puerto Rico and the Virgin Islands?

What has kept organizations from applying for funding?

For the benefit of interpreters, please speak clearly and slowly

PUBLIC COMMENT PERIOD



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



Each commenter has **three (3) minutes** to speak



For the benefit of interpreters, please speak clearly and slowly



If you do not get a chance to speak during the allotted time, please submit your comments in writing




Written comments can be submitted until **August 9, 2023**




Comments will help the NEJAC form better recommendations

Adjourn






National Environmental Justice Advisory Council



PUBLIC MEETING
July 27, 2023

REMINDERS

-  Meeting attendees are in listen/view mode only
-  The chat feature will not be available in this virtual meeting

Written comments can be submitted until; August 9, 2023, to nejac@epa.gov

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AGENDA HIGHLIGHTS Thursday, July 27 9:00 AM – 6:00 PM EASTERN	
9:00 AM – 9:05 AM	Open Public Meeting
9:05 AM – 9:15 AM	Welcome & Recap
9:15 AM – 9:25 AM	NEJAC Member Introductions
9:25 AM – 9:55 AM	Opening Remarks
9:55 AM – 10:55 AM	NEJAC NEPA Workgroup Recommendations Presentation
1:00 PM – 2:30 PM	NEJAC Water Infrastructure Technical Assistance Workgroup Recommendations Presentation
2:45 PM – 6:00 PM	Public Business Meeting
6:00 PM	Adjourn



Welcome & Recap

- **Matthew Tejada**, Deputy Assistant Administrator for EJ, Office of Environmental Justice and External Civil Rights – U.S. EPA
- **Sylvia Orduño**, NEJAC Co-Chair – Michigan Welfare Rights Organization
- **Dr. Na’Taki Osborne Jelks**, NEJAC Co-Chair – West Atlanta Watershed Alliance and Proctor Creek Stewardship Council
- **Michael Tilchin**, NEJAC Vice Chair – Jacobs Engineering



NEJAC Member Introductions

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NEJAC MEMBERS

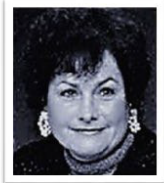
ACADEMIA



April Karen Baptiste, PhD
Colgate University
Region 2 - New York



Benjamin Pauli, PhD
Kettering University
Region 5 - Michigan



Jan Marie Fritz, PhD, C.C.S
University of Cincinnati
Region 4 - Florida



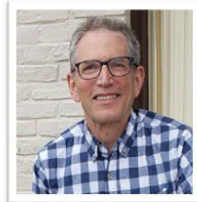
Sandra Whitehead, PhD,
George Washington University
Region 3 - District of Columbia



Jill Lindsey Harrison, PhD
University of Colorado Boulder
Region 8 - Colorado

NEJAC MEMBERS

BUSINESS & INDUSTRY



VICE-CHAIR OF NEJAC

Michael Tilchin
Jacobs Engineering
Region 3 - Maryland

NEJAC MEMBERS

COMMUNITY BASED ORGANIZATIONS



Rev. Ambrose Carroll, Sr., PhD
Green The Church
Region 9 - California



Pamela Talley, PhD
Lewis Place Historical Preservation Inc.
Region 7 - Missouri



Leticia Colon de Mejias
Green ECO Warriors
Region 1 - Connecticut



Jerome Shabazz
JASTECH Development Services Inc
Region 3 - Pennsylvania



Cemelli De Aztlan
La Mujer Obrera
Region 6 - Texas



Sofia Owen, JD
Alternatives for Community &
Environment (ACE)
Region 1 - Massachusetts

NEJAC MEMBERS

COMMUNITY BASED ORGANIZATIONS (continued)



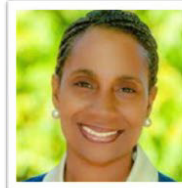
Yvonka M. Hall
Northeast Ohio Black Health
Coalition
Region 5 - Ohio



Nina McCoy
Martin County Concerned
Citizens
Region 4 - Kentucky



Richard Mabion
Building A Sustainable Earth
Community
Region 7 - Kansas



CO-CHAIR OF NEJAC

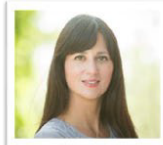
Na'Taki Osborne Jelks, PhD
West Atlanta Watershed
Alliance and Proctor Creek
Stewardship Council
Region 4 - Georgia

NEJAC MEMBERS

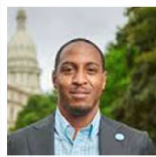
NON-GOVERNMENT ORGANIZATIONS



Andy Kricun
Moonshot Missions
Region 2 - New Jersey



Brenda Torres Barreto
San Juan Bay Estuary Prog.
Region 2 - Puerto Rico



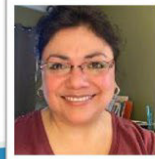
Jeremy F. Orr, JD
Earthjustice
Region 5 - Illinois



Ayako Nagano, JD
Common Vision
Region 9 - California



Jacqueline Shirley, MPH
Rural Community
Assistance Corporation
Region 6 - New Mexico



CO-CHAIR OF NEJAC

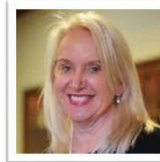
Sylvia Orduño
Michigan Welfare Rights Organization
Region 5 - Michigan

NEJAC MEMBERS

STATE & LOCAL GOVERNMENT



Millicent Piazza, PhD
Washington State Department of Ecology
Region 10 - Washington



Loren Hopkins, PhD
City of Houston Health
Department
Region 6 - Texas

NEJAC MEMBERS

TRIBAL & INDIGENOUS GOVERNMENT & ORGANIZATIONS



Joy Britt
Region 10 - Alaska



John Doyle
Little Big Horn College
Region 8 - Montana



Scott Clow
Ute Mountain Ute Tribe
Region 8 - Colorado



Jonathan Perry
Becenti Chapter
Region 6 - New Mexico

Opening Remarks

Robin Collin, Senior Advisor to the
Administrator for Environmental
Justice, U.S. EPA



NEJAC National Environmental Policy Act Workgroup Recommendations

Millicent Piazza, Program Manager, Office of Equity
and Environmental Justice, Washington State
Department of Ecology

Ayako Nagano, Board Member, Common Vision

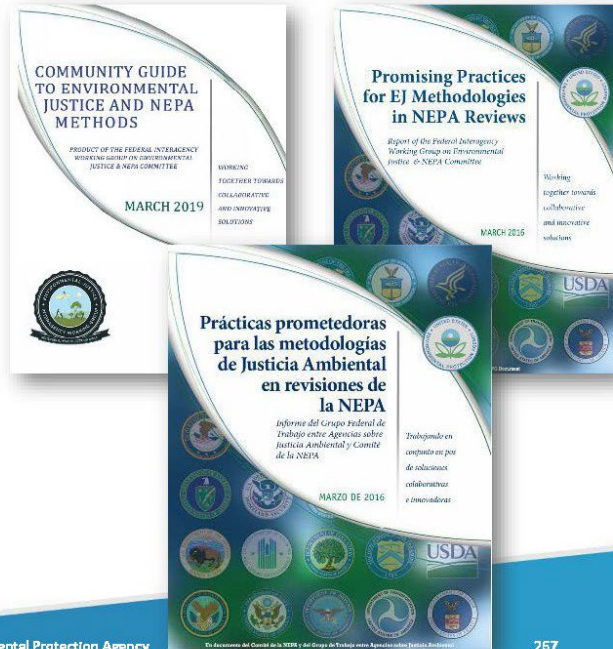


NEPA Work Group Recommendations to the EPA

July 2023

NEPA WORK GROUP

- Charge questions received 12/2022
- Conversations with work group and EPA
- Review of current EPA training catalog
- Interviews with NEJAC members and external thought partners.



Charge Questions to the NEPA Work Group

Part I: Internal Training

1. What training approaches or strategies would NEJAC recommend for EPA NEPA/309 reviewers seeking intermediate or advanced training on EJ issues, as related to NEPA/309 review process?
2. What topics or content would NEJAC recommend EPA trainings include for EPA NEPA/309 reviewers to support EPA's objective to help agencies reduce environmental impacts to communities with EJ concerns and improve the NEPA/309 reviewers' understanding of impacts experienced by communities with EJ concerns?
3. How would NEJAC suggest EPA determine the effectiveness of the training of NEPA/309 reviewers to help other federal agencies ensure potential environmental and health burdens on a community with EJ concerns are fully analyzed and addressed?

Part II: External Training

1. To effect practicable and measurable change in communities with EJ concerns, what approaches or strategies would NEJAC recommend for training communities and federal and state agencies?
2. What content or topics would NEJAC suggest being included in training of federal and state agencies and communities to reduce adverse impacts to communities with EJ concerns, and how would that differ, if at all, from training for NEPA/309 reviewers?
3. How would NEJAC suggest EPA determine the effectiveness of training agencies and communities to help other federal agencies ensure potential environmental and health burdens on a community with EJ concerns are fully analyzed and addressed?

NEPA Work Group Recommendations

Part I: Internal Training

Charge Question 1:

What training approaches or strategies would NEJAC recommend for EPA NEPA/309 reviewers seeking intermediate or advanced training on EJ issues, as related to NEPA/309 review process?

→ Format & Frequency

- Curriculum design for effective learning, teaching styles, and materials
- Case studies, community voice, and navigating challenges

→ Transparency & Accountability

- Community and external evaluation and review
- Representation and lived expertise in NEPA reviewer training and hiring
- Bias and cultural humility training and accountability

→ Knowledge Sharing & Integrated Approaches

- Public database of NEPA EIS documents
- Title VI in process and analyses
- Pathways for escalation of environmental justice cases

Part I: Internal Training

Charge Question 2:

What topics or content would NEJAC recommend EPA trainings include for EPA NEPA/309 reviewers to support EPA's objective to help agencies reduce environmental impacts to communities with EJ concerns and improve the NEPA/309 reviewers' understanding of impacts experienced by communities with EJ concerns?

→ Data Reliability, Consistency, & Accessibility

- Guidance on relevant and current data sources
- Standardized technical reports and plain language
- Action and prioritization with data uncertainty or incompleteness

→ Community Representation

- Effective and respectful communication
- Protocols for documenting community expertise and local knowledge
- Equitable mitigation strategies

→ Cumulative & Holistic

- Trauma informed analysis and interdisciplinary approach
- Anti-racist community of practice

Part I: Internal Training

Charge Question 3:

How would NEJAC suggest EPA determine the effectiveness of the training of NEPA/309 reviewers to help other federal agencies ensure potential environmental and health burdens on a community with EJ concerns are fully analyzed and addressed?

→ Public Accountability

- Accessible summaries of findings, alternate formats, and follow-through

→ Transparent Assessments

- Review and auditing of analyses and reviews for consistency
- External and independent evaluation of reviews
- Peer review

Part II: External Training

Charge Question 1:

To effect practicable and measurable change in communities with EJ concerns, what approaches or strategies would NEJAC recommend for training communities and federal and state agencies?

→ Respectful Engagement

- Community compensation for involvement and expertise
- Training for reviewers by community-based organizations
- Long-term community capacity-building

→ Integrated Approach

- Cross-program and inter-agency collaboration on mitigation

Part II: External Training

Charge Question 2:

What content or topics would NEJAC suggest being included in training of federal and state agencies and communities to reduce adverse impacts to communities with EJ concerns, and how would that differ, if at all, from training for NEPA/309 reviewers?

→ Comprehensive NEPA Review

- NEPA purpose, scope, and key provisions

→ Community Engagement

- Rights of communities in the NEPA process
- Accountability to inclusive processes and participation

→ Remedies & Support

- Rights to comment, appeal, and pursue remedies
- Database of complaints, lawsuits, and appeals for considerations during review

Part II: External Training

Charge Question 3:

How would NEJAC suggest EPA determine the effectiveness of training agencies and communities to help other federal agencies ensure potential environmental and health burdens on a community with EJ concerns are fully analyzed and addressed?

→ External Assessment Process

- Assessments and audits
- Community feedback from affected populations
- Independent reviewers
- Cross-agency collaboration and practice

NEPA moving forward

- Support meaningful EJ consideration
- Address internal inconsistency & challenging workflow processes
- Integrate EJ into job descriptions
- Staff accountability to robust and forward-thinking reviews
- Internal audits to track progress
- Acknowledge exemplary processes and reviews
- ❖ EPA timelines for response, actions, and outcomes on recommendations.

NEPA Workgroup Family

NEJAC Members

Millie Piazza (WG Co-Chair)
Ayako Nagano (WG Co-Chair)
Andy Kricun
Jan Fritz
Jill Lindsey Harrison
Loren Hopkins
Nina Mccoy
Richard Mabion
Sofia Owen
Yvonka Hall

EPA/NEJAC Staff

Cindy Barger
David Magdangal
Julie Roemele
Stan Buzzelle
Paula Flores Gregg
Karen Martin

Contractor Support

Cat Foley
Carly Harris

Thought Contributors

Dennis Randolph
Cheryl Johnson
Pamela Bingham

NEJAC Water Infrastructure Technical Assistance Workgroup Recommendations

WORKGROUP CHAIRS

Na'Taki Osborne Jelks, NEJAC Co-Chair –
West Atlanta Watershed Alliance and
Proctor Creek Stewardship Council
Andy Kricun, Managing Director,
Moonshot Missions

SUBGROUP CHAIRS

Benjamin J. Pauli, Assistant Professor,
Department of Liberal Studies, Kettering
University (Municipal Utilities)
Jacqueline Shirley, Rural Community
Assistance Corporation (Rural Water)
Ayako Nagano, Board Member, Common
Vision (Workforce Development)

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Water Infrastructure Workgroup Report on Water Technical Assistance to the National Environmental Justice Advisory Council

July 27, 2023

NEJAC Water Infrastructure Working Group Members

Na'Taki Osborne Jelks, PhD (Co-Chair)

Andy Kricun (Co-Chair)

Rev. Ambrose Carroll, PhD

Scott Clow

John Doyle

Richard Mabion

Nina McCoy

Aya Nagano

Sylvia Orduño

Jeremy Orr

Ben Pauli, PhD

Jonathan Perry

Jacqueline D. Shirley, MPH

Michael Tilchin

Brenda Torres Barreto

Water Infrastructure Technical Assistance Charge

Charge questions were addressed through three (3) Subgroups:

- Municipal Utilities
- Rural Water
- Workforce Development

Charge collaboratively developed by EPA's Office of Water, Office of Environmental Justice and External Civil Rights, and the NEJAC Water Infrastructure Workgroup

Workgroup Sessions with - EPA: OW, OEJECR & Tribal Programs and invited external experts

Caveats for Recommendations

- We understand that EPA has already started to implement some of the recommendations contained in our report.
- Significant gaps continue to exist, EJ communities are still greatly at risk.
- Where EPA is limited in its authority to solely act, the agency should be creative in delivering on the intent of the recommendations— including driving and leading engagement with other federal agencies who may also have some shared responsibility.

Response requested by December 2023 NEJAC Public Meeting.

NEJAC Municipal Utilities Subgroup

Members & Contributors:

Ben Pauli, PhD (Chair)
Andy Kricun
Jeremiah Muhammad
Sylvia Orduño
Jeremy Orr
Dennis Randolph
Mike Tilchin
Cheryl Watson

Municipal Utilities Subgroup

Findings

Municipal utilities serving environmental justice communities often:

- Oversee systems with aging, dilapidated, toxic, and inadequate infrastructure
- Lack sufficient funds to maintain, repair, replace, and upgrade their water systems when the need arises
- Find it difficult to attract and retain qualified employees
- Charge high water rates but still can't finance new projects or even cover costs
- Struggle to identify, evaluate, and access federal funds and technical assistance

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Municipal Utilities Subgroup

Findings

Municipal utilities serving environmental justice communities often:

- Have few “shovel ready” projects in waiting due to lack of planning capacity/expertise
- Face challenges with long-term operations and maintenance even when projects are funded
- Have limited or hostile relationships with community members and lack collaborative partnerships with community groups

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Municipal Utilities Subgroup

Findings

Existing technical assistance is not robust and accessible enough to meet the needs of municipal utilities in EJ communities. Some of the reasons include:

- Lack of adequate outreach to local utilities
- Lack of resources to provide full range of services
- Restrictive state definitions of “disadvantaged community”
- Lack of will or ability on the part of state governments to communities in need of assistance

Currently, EPA makes no accountability mechanisms available to community members with concerns about EPA-funded technical experts.

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Municipal Utilities Subgroup

Recommendations

- Help municipal utilities to identify needs and solutions, design projects, and secure financing.
- Establish clear definitions of “disadvantaged” and “underserved” communities and assess how differing state-level definitions affect the provision of funds and assistance.
- Conduct proactive outreach to every utility serving an underserved community.
- Establish a user-friendly, comprehensive technical assistance website.

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Municipal Utilities Subgroup

Recommendations

- Recommend that technical assistance providers employ or contract with community engagement experts and recommend Environmental Finance Centers to have community team members or advisory boards.
- Provide resources and guidance for community members/groups that want to position themselves for more effective collaboration with utilities on a project-by-project or on an ongoing basis.
- Establish an accountability hotline or a designated contact at the agency to receive concerns—anonously or otherwise—from community members about providers of TA or the use of TA resources in their communities.

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Municipal Utilities Subgroup

Recommendations

- Implement a robust, permanent National Low Income Household Water Assistance Program (LIHWAP) to provide a safety net for low-income households so that water utilities can provide full cost services to EJ communities.

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Rural Water Subcommittee

NEJAC Members

Rev. Ambrose Carroll, PhD

Nina McCoy

Jacqueline Shirley

Invited External Experts

Rev. Bruce Carroll

Nicole Merino Tsui

Discussions:

- Rural communities are diverse, and one-size-fits all assumptions and solution cannot be used.
- Rural communities and water utilities require technical assistance, training, access to funding streams, and true voice at political tables as larger systems.
- Rural community Technical Assistance Providers such as Rural Water, RCAP, Water Alliance and others need the flexible and support from EPA so they may better serve the rural communities in their service areas.
- EPA needs to engage with rural communities as partners and not just regulators.

Key Recommendations

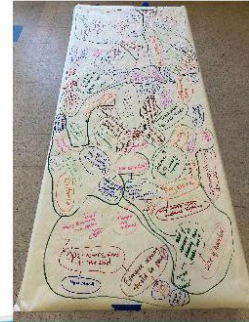
- EPA must ensure that outreach and awareness of all the opportunities that the BIL, IRA, SFR, TCTAC, EFC's, Funding Centers, TA Providers reach the most in need. This outreach needs to be with intent and proactive.
- EPA needs to regulate and enforce and ensure polluters to local source water (public and private wells) are held accountable.
- EPA needs to consider thinking outside the box when replacing and repairing infrastructure – to consider resiliency against future emerging contaminants, climate change, & energy efficiency.
- EPA needs to build, rebuild or establish trust with the rural communities they serve and regulate.

Conclusions:

- This is a continuous journey that is demanded to ensure all people everywhere have access to safe, affordable drinking water. Many do not have this.
- This report does not address all the complex issues and challenges faced by rural communities across our country.
- Rural utilities and their communities deserve certain considerations and attention to meet their need; no matter the “extra effort.”
- And remember “When you’ve visited one rural community, you’ve visited ONE rural community.”

Photos: Two different Alaska village systems.

Collaborative Problem-Solving with Rural Communities



U.S. Environmental Protection Agency

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NEJAC Water Infrastructure Working Group Workforce Development Subgroup

Member & Contributors:

Aya Nagano (Chair)

Andy Kricun

Scott Clow,

Sylvia Orduño

Jerome Shabazz

Nina McCoy

John Doyle

Leticia Colon

Richard Mabion

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Workforce Development Subgroup

High Level Recommendations

- Create an EJ focused workforce think tank with DOL, DOE, DOC, etc.
- Ensure that EJ communities are served by utilities with sufficient staffing, experience and resources.
- Civil service applications need to be more accessible to EJ community members.
- Water workforce related credentials need to be portable nationally
- EPA should create win-win-win scenarios: replace lead service lines and provide training to the next generation of skilled water workforce to make up for an upcoming labor shortage
- Create Green / Climate Change Mitigation Jobs that require shorter training times / more accessible jobs to EJ community members. Can translate to jobs in the Parks & Rec dept.
- Leadership and project management skills are highly portable, need more people trained in these skills.
- Embed water workforce development into SRF eligible projects
- Support the development of a \$25,000 per person budget for each trainee.
 - A \$25,000 investment equals \$893,000 in taxes paid over the lifetime of a working individual. These numbers should be uplifted as it is a good return on investment for the government to prioritize investments in individuals.

Workforce Development Subgroup

Solutions need to be multi-faceted.

- Need different tools for different communities
- Mid-sized utilities are without capacity and without support.
- Tribes face unique problems related to the water sector

<p><u>Internships:</u></p> <ul style="list-style-type: none"> ● Create curriculum that is different than the traditional classroom style learning to help break down historical and cultural barriers ● Develop certification programs with the specific intent of having those people move into jobs in the local utilities after middle schools, high schools, colleges. ● Showcase best practices around nation. 	<p><u>Pre-Employment Trainings & Certifications</u></p> <ul style="list-style-type: none"> ● Important to recognize the difference between internships / trainings that offer employment afterwards. Apprenticeships typically offer jobs afterwards, where as pre-apprenticeships do not. Each have their benefits. ● Funding needs to be flexible enough to do apprenticeships and OJT (on-the-job training). Work with Tribal Colleges and HBCUs. ● Showcase best practices around nation.
<p><u>JEDI Hiring Practices that target EJ communities</u></p> <ul style="list-style-type: none"> ● Measure progress. ● The starting wages around the country is typically \$15 ~ \$17/hour depending on region. 	<p><u>Advancement Opportunities for Career Development</u></p> <ul style="list-style-type: none"> ● Measure progress. ● Water sector has many types of jobs and careers.

Workforce Development Subgroup

Recommendations for EFCs and TCTACs

Agreements with outside contractors coming into EJ communities should be reviewed by EPA to ensure sufficient oversight of local hiring practices.

EJ Trainings at EFCs and TCTACs should cover:

- Historical underinvestment in EJ communities, why JEDI?
- Importance of hiring a community liaison on projects to anchor the community's trust
- Knowledge sharing - Adopt or Adapt these best practices.
- Recruit Partners
- Maintaining Institutional Knowledge @ local utilities
- Tracking Meaningful Metrics to measure periodic progress

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Workforce Development Subgroup

How can Environmental Finance Centers and TCTACs enhance EJ programs from within?

Working with Outside Contractors: Build equity into the bidding process. Outside contractors should be required to adhere to a combination of the following requirements:

- Outside Contractors must provide trainings to the local workforce, or a local business, so that locals can grow capacity and learn on the job.
- Outside Contractors must devote 15% of construction costs to EJ community members or member-owned business enterprises.
- Outside Contractors must include a community benefit project of at least \$500,000 in value, so that the locals can grow capacity and learn on the job.
- Communities should be encouraged to create community-based construction cooperatives to build place specific institutional knowledge.

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Workforce Development Subgroup

Recommendations for Wrap Around Services, to be provided in partnership with other local entities and EFCs / TCTACs

- Outreach & Recruitment: How to invite communities into the water sector to build community trust.
- Child Care
- Equal access to Education
- Housing
- Transportation
- Affordable Utilities (Energy, Internet, Phone)
- Culturally Appropriate Wellness Support
- Letters of Recommendation and other miscellaneous support
- Provide financial support thru a “benefits cliff” of 6 months

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Workforce Development Subgroup

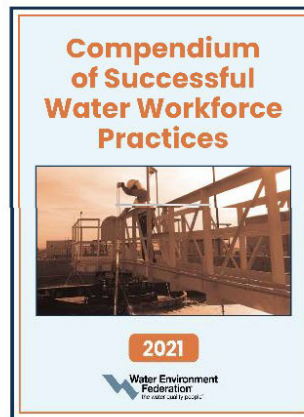
We know how to do this work better.

Now we need funding and implementation.

See the Compendium of Successful

Water Workforce Practices

tinyurl.com/watercompendium



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Current Challenges for Potential New NEJAC Charge Scopes of Work

- Combined Sewage Overflow (CSO) Mitigation in EJ Communities
- Source Water Protection/Well Water Contamination
- Tribal Water Challenges
- EPA Water and Environmental Justice Performance Scorecard
- Industrial wastewater pre-treatment

Current Challenges for Potential New NEJAC Charge Scopes of Work Cont'd

- Drinking water quality/chemicals and emerging contaminants of concern
 - PFAS/Lead/Fluoride/Chromium VI and Others
- Potential consolidation/regionalization of community water systems alongside specific protections for communities against predatory practices
- Addressing climate change impacts on water infrastructure



**Thank you for your time
and attention!**

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Public Business Meeting

- NEJAC Workgroup Updates
 - Farmworkers & Pesticides Workgroup
 - Cumulative Impacts Workgroup
- Proposed New Charges
- Upcoming Events



U.S. Environmental Protection Agency

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NEJAC Cumulative Impacts Workgroup Update

July 27, 2023

Overall Work Plan: Four Phases

1. Workgroup Formation and Preparation (February – May 2023)
2. Reach consensus on areas for recommendations and establishing structure/approach for working on them (June – July 2023)
3. Develop content of recommendations (August – December 2023)
4. Write and submit report and recommendations (January – March 2024)

Charge Questions

What can we learn from recent developments in cumulative impacts assessment at the state and local level?

What approaches can EPA adopt for assessing and addressing cumulative impacts?

What advice does the working group have for finalizing and implementing a cumulative impacts framework?

Phase I: Workgroup Formation and Preparation

Accomplishments

Workgroup Formation

- Workgroup formed in February 2023
- Chaired by Sandra Whitehead (NEJAC) and Kristie Ellickson (Union of Concerned Scientists)
- Provided input to developing charge, which was adopted by the full NEJAC in March 2023
- Work group meetings began in March 2023

Preparation: Learning Sessions

- Definitions of cumulative impacts
- Recent state and local experience, such as Minnesota and Massachusetts, New Jersey, Chicago General Iron permit analysis
- EPA's Cumulative Impacts Addendum (existing statutory authorities)
- Green zones and comprehensive community approaches

Phase 2: Reach consensus on areas for recommendations and develop structure/approach for working on them

Accomplishments:

- Identified and reached consensus on eleven areas for development of recommendations
- Developed a structure for working on recommendations with leads areas for development of recommendations, including assignments of co-chairs for each set of charge questions
- Engaged Robin Collins on status of cumulative impacts framework document and key questions
- Utilized Puerto Rico in-person meeting to build cohesion, flesh out the 11 priority areas and process for working on recommendations, as well as to have more in-depth discussions with work group members on their areas of expertise

Agreed Upon Areas for Recommendations

Lessons from Recent Experience

- Consideration of disproportionate impacts and importance of equity mandate for actionable cumulative impacts analysis, particularly in the permitting space.
- Definition of cumulative impacts
- Green Zones (Community driven, comprehensive, place-based approaches to address cumulative impacts and achieve community health, sustainability and resilience)

Agreed Upon Areas for Recommendations

Assessment Approaches and Methods

- Mechanisms to incorporate community knowledge and lived experience into decision making
- Considering and incorporating historical and structural drivers of concentrated environmental burden, especially the legacy of racism
- Considering and incorporating climate justice

Agreed Upon Areas for Recommendations

Operationalizing and Integrating Cumulative Impacts Assessment and Action

- Ensuring that EPA's cumulative impacts work reflects needs, perspectives, experience and priorities of EJ communities
- Accelerating implementation of EPA's cumulative impacts work
- Ways to promote collaboration and co-generation of knowledge and expertise
- Innovative ideas, particularly but not limited to the Total Maximum Daily Load (TMDL) concept

Next Steps

Phase 3

Develop content of specific recommendations by December 2023, using Fall in-person meeting as an important working session

Phase 4

Complete draft report and recommendations by March 2024



Closing Remarks



**Thank you
for your participation**

www.epa.gov/environmentaljustice/national-environmental-justice-advisory-council

Appendix C. Written Public Comments

Public Comments

National Environmental Justice
Advisory Council

July 2023 Public Meeting

San Juan, Puerto Rico

Region 2

NJ, NY, Puerto Rico, U.S. Virgin
Islands and 8 federally
recognized Indian Nations

To: Mr. Michael Regan, EPA Administrator

July 26, 2022

Thank you for this opportunity to express our community's concern regarding the Jacksonville District Rio Puerto Nuevo Flood Damage Reduction Project for the Rio Piedras in San Juan, PR,

The project previously known as the Rio Puerto Nuevo Flood Control has its origins in 1984. It has already completed certain contracts at the mouth of the river and is now beginning to work its way up the main channel thanks to the recent allotment of close to 3 billion in public funds assigned to Recuperation Projects post Maria.

We hope we can change the course of events to channel this project into a much better one, and thus spearhead a new vision for better projects for all of PR, making communities safer and making the most conscientious use of these public moneys.

Guarda Río is a community-based organization composed mostly of long-term residents from communities along the Río Piedras and other interested citizens that have come together to protect and steward the only river of the city of San Juan, and to ensure that many of the environmental, social, health, and recreational services this green corridor provides is there for the families, children, elderly and people from all walks of life to enjoy and to benefit for future generations.

This green corridor is being threatened by a project to construct a concrete channel along 9.5 miles of the river. The Río Piedras/Puerto Nuevo Flood Damage Reduction Project (from now on Project) by the US Army Corps of Engineers (USACE) is the largest and most costly infrastructure project (nearly \$3 billion) of the 45 projects that the USACE has underway in Puerto Rico since hurricane María.

We agree that some structural flood control measures and improvements of existing tributary canals and of bridges are needed, as many of us live with the frequent threat of flooding. Yet, we also understand that the measures taken in the **Project will not solve our flood problems because from our years living in the area (in some cases generations) have shown us that it is the city's stormwater system, and not the river, that causes our greatest flood issues.**

We believe that the Project can create more harm than benefit to the surrounding communities and we need your help addressing the following concerns:

1) According to NEPA and President Biden's Justice 40 initiative, infrastructure project of this magnitude should have a just, inclusive, and transparent infrastructure design accompanied by environmental analysis to ensure that underserved communities are involved and benefit from infrastructure investment. **None of these policies have been followed. The EIS was based on a design from 1978 and approved in 1984-1985 - nearly four decades ago!!** It was circulated in English for only 30 days and none of the 200 residents we have spoken to know or recall any public hearings then (many have lived their entire lives there). Moreover, in spite of fundamental changes in Project design since the EIS was approved, and dramatic social, ecological, and economic changes in the basin, USACE rejects developing a new and **unfragmented EIS.**

We are told that **internal** USACE consultations have determined that a new EIS process will not be triggered but instead will only involve amendments to the 7 supplemental contracts - **separately**. Therefore, not only are the environmental impacts on a river ecosystem being analyzed in fragments (not as a whole ecosystem or watershed), but the process will also not involve public review and the communities most affected will not have their voices heard.

Mr. Reagan, as the head of the Environmental Protection Agency, we need your help in ensuring that our communities have access to a truly participatory and transparent NEPA process for this Project.

2) We know that the Biden administration recognizes forests, green infrastructure, and other nature-based solutions as powerful tools in mitigating against climate change. And we know that the USACE has its own

ongoing efforts to bring nature-based solutions and hybrid infrastructure to fruition in other states through the *Engineering with Nature* initiative. **Yet, the potential to use these nature-based solutions to mitigate flooding in the Río Piedras project has not been explored, as it does not appear to have been in the all the other PR projects coming next.** We believe that developing a new EIS process for this project will give us more opportunity to explore other solutions, like engineering with nature, work with the municipality to improve the stormwater infrastructure to address to root of the problem, and thus design an improved and cost-effective Project that all communities can enjoy, now and in the future. **We believe that communities in the US Island Territories deserve flood infrastructure projects at par with 21st century visions and technologies just as much as our co-citizens on the mainland.**

3) We are only beginning to taste how Climate Change exacerbates extreme weather. The Caribbean Area is modeled to become ever drier. Our community has already been experiencing year after year increments and day-to-day challenges of very high temperatures which seem to establish a new normal, accompanied by more extended droughts, changes in plant and animal behavior, as well as seeing some occasional intense rain events. We worry that mitigation infrastructure projects that focus on only one hazard will make the other hazards much worse as we believe in our case the channelization of the Rio Piedras will.

In the riverine forest along the route of the Rio Piedras towards the Bay of San Juan, we have a wonderful natural resource that is a refuge for us and for wildlife in land and water. It is a hub of activity for neighbors as well as visitors from other parts of San Juan, who are attracted by its richness and beauty. It is an example of where Green Cities ought to be going, and not walking away from. Its ecosystem services counteract heat, drought, air and sound pollution, isolation and allow us to plant minor crops, have access to water, exercise, release stress, make community. Therefore, we staunchly believe this project As Is- is going to harm us.

In the actual project USACE is only focusing on how to transport a certain water volume they calculate may arrive one day and flushing it quickly into the Bay. They are not considering the river as a complex system. They are not considering the landscape. They are not considering the interaction between waters from land to river and inversely. They are not considering the services of the river into the Estuary and along its way. They are not considering the complexities of Climate Change. They have limited themselves only to the physical channel to find all their solutions within it.

For one thing, this tunnel vision project renders the river dead by turning it into a flat shallow hot barren course not fit for anything except to empty out the volume that one day may come. The 1984 project never considered to step out into the landscape and study various options of mitigating rapid runoff into the river. As an example, while highly urban, the area has several large green patches as well as other wide spaces that can be refitted to act as a system of water management when needed. In the realm of possibilities of the 21st Century planners are applying this and many more features of Nature into the solutions of today.

But this needs room. So USACE's project must expand its scope outside of the stream channel. EWN must be brought into the assignment, and allowed to explore the wider landscape for those solutions that integrated together will produce the best possible project. This project must include in its primary considerations, the value that ecosystem services provide today and into the future to all of us.

We will be happy to provide and further material you may need to inform these issues. We are willing to work with you in any shape, way, or form to pursue a better outcome for all.

Cynthia Manfred, for Guarda Rio
cynthiamanfred@gmail.com



Public Comment on the part of **Guarda Rio** community group for the **National Environmental Justice Advisory Council** Public Meeting, San Juan, July 26, 2023,
Re: **USACE's Rio Puerto Nuevo Flood Mitigation Project** (which results as part of the project in the channelization of the **Rio Piedras** river of San Juan)

Thank you for your ongoing attention to Puerto Rico's issues. We hope this opportunity can evolve into further follow-ups and some form of working relationship that includes community organizations like ours. In addition to our comment for today's public meeting as included in this page, we are submitting 3 letters that reinforce our concerns:

1. Letter by Guarda Rio handed in person to EPA's Administrator Michael Reagan during his Journey to Justice tour visit to Puerto Rico on July 26, 2022.
2. Letter to Gretchen Ehlinger, Chief Env Branch, USACE Jacksonville Fla District by Ecologist and Emeritus Scientist, International Institute of Tropical Forestry, USDA FS- Ariel Lugo –on NEPA related issues that have so far been ignored by USACE by examining concerns over the Kelly Report.
3. Letter to USACE's Lieutenant General Scott A. Spellmon, Chief of Engineers and Commanding General, and to the Honorable Michael L. Connor, Assistant Secretary of the Army for Civil Works- from 17 Members of Congress and US Senators on concerns over USACE's civil works projects in Puerto Rico

We hope NEJAC can advise EPA to consider acting upon (if in its mission), or affecting influence towards issues of other federal agencies, US Congress, the PR government, and its agencies, regarding issues like the following:

1. Favor Natural Based Solutions wherever possible
2. Develop a high level of knowledge regarding the diversity of possibilities and applications of Nature Based Solutions
3. Assign a high value to ecosystem services and the ecological preservation needed for long term resilience in any civil works project or mitigation plan contemplated.
4. Consider extended periods of drought and temperature rise as serious life threats on the increase and maintain the awareness to support projects that mitigate those and on the opposite of not allowing projects that make them worse.
5. Consider a varied array of soft mitigation measures towards flood control rather than hard infrastructure that may damage more than what it hopes to solve.
6. Consider flood proofing homes or correcting stormwater systems rather than impacting a stream, river, or aquifer.
7. Maintain awareness of the need to strengthen hydric security.
8. Favor extensive management of watersheds which may include moratorium to additional construction and impermeabilization.
9. Favor maintaining the integrity of hydrologic systems, streams, rivers, and aquifers.
10. Favor measures of reforestation, increased infiltration, water retaining structures natural and created.
11. Favor recommendations that employ and integral analysis approach -Example: consider the whole of a hydrological system, consider the greater landscape to identify decentralized mitigation solutions, Consider the whole of PR, as the islands limited territory may accentuate the domino effect from one landscape or ecological system to the other.
12. Raise a red flag every time gray infrastructure is proposed without a holistic multifactorial analysis.
13. Reexamine NEPA's requirements regarding the above considerations.
14. Require the U.S. Army Corps of Engineers (USACE) to convene an independent technical advisory board to develop a comprehensive plan detailing how their projects in PR will work in concert and align with the Biden Administration's policy guidelines on forward-looking climate resiliency, nature-based solutions, and environmental justice.

Guarda Rio is a community group in San Juan that came together in 2020 as a reaction to discovering that a large USACE project coming to our area . The project is called Rio Puerto Nuevo flood mitigation project. The project would channelize the Rio Piedras River we live by, all the way from our neighborhoods to the San Juan Bay. This river is still in a predominantly natural state. This channelization would kill the river and eliminate the natural banks and riverine forest - which I will qualify:

The surprisingly high biodiversity of aquatic and terrestrial life in a big sector of this dense urban zone in San Juan is due to the biodiversity that this urban river and its vegetated or forested banks sustain. The Rio Piedras River connects mountain to sea sustaining the migratory aquatic species native to PR. Its riverine system includes forested banks, aquifers, and part of the 1000 protected acres of the Ecological Corridor of San Juan (Law 206 of 2003). The destruction implied by the construction of 2 miles of gigantic walls made up of thousands of columns using the drill shaft method along the main course of the Rio Piedras is unfathomable in the 21st century where the integrity of hydrological systems should be upfront in times of hydrological stress as a result of ongoing Climate Changes.

Cynthia Manfred for Guarda Rio
cynthiamanfred@gmail.com

Congress of the United States
Washington, DC 20515

July 20, 2023

Lieutenant General Scott A. Spellmon
55th Chief of Engineers and Commanding General
U.S. Army Corps of Engineers
441 G Street NW
Washington, DC 20314-1000

The Honorable Michael L. Connor
Assistant Secretary of the Army for Civil Works
U.S. Department of the Army
108 Army Pentagon
Washington, DC 20310-0108

Dear Lieutenant General Spellmon and Assistant Secretary Connor:

We are writing to express our significant concerns regarding the U.S. Army Corps of Engineers (USACE) civil works projects in Puerto Rico. We urge USACE to convene an independent technical advisory board to develop a comprehensive plan detailing how these projects will work in concert and align with the Biden Administration’s policy guidelines on forward-looking climate resiliency, nature-based solutions, and environmental justice.

We respectfully request that USACE convenes an independent technical advisory board that works with and oversees the Jacksonville District Office of the Chief of Engineers, and that develops a comprehensive plan for all USACE projects in Puerto Rico. The primary objectives of such a plan would be to: (a) identify how all the water projects in Puerto Rico are related, including potential cumulative environmental effects; and (b) develop a comprehensive, integrated strategy for how the projects will be updated to meet the Biden Administration’s policy guidelines on the use of nature-based solutions and environmental justice.

As you know, there are currently 35 USACE projects in Puerto Rico, including 11 funded through the *Bipartisan Budget Act of 2018*, the *Infrastructure Investment and Jobs Act*, and the *Fiscal Year 2023 National Defense Authorization Act* (FY23 NDAA). These projects constitute an unprecedented investment in Puerto Rico’s water infrastructure and have the potential to significantly reduce the island’s existing critical vulnerabilities to storm events. However, the development of these projects continues to be procedurally and substantively flawed, calling into question USACE’s environmental, engineering, and climate analyses.

One of our primary concerns is that each project has been conceived and analyzed independently from the other projects. Puerto Rico only has a geographic area of 3,425 square miles, and yet, each project has been designed and assessed separately. This means that many critical considerations—such as the possibility of a USACE canalization project increasing sedimentation that can obstruct another nearby USACE ecosystem restoration project—are missing or at least not publicly available. While we understand that developing a comprehensive project plan can be a complicated and lengthy endeavor, such a plan is fundamental due to the vast number of projects and the relatively small size of the island.

Congress of the United States
Washington, DC 20515

An additional concern is that the designs of many USACE projects approved through the *Bipartisan Budget Act of 2018*, and expedited most recently by the FY23 NDAA, such as the Río Puerto Nuevo (Río Piedras in San Juan), Río Nigua (Salinas), Río Grande de Loíza (Loíza), and Río Guanajibo (Mayagüez), seem to be based on outdated science and technical practices. These projects were designed decades ago, and though they have been partially revised, little consideration was given to advances in scientific understanding of the climate, environmental, and socio-economic conditions of Puerto Rico. Many of the projects also involve hard infrastructure solutions that do not align with the Biden Administration's goals nor the livelihoods and needs of local communities, such as concrete river channels that divide neighborhoods, and obstructive seawalls along viewsheds that are important to the island's tourism economy. Members of the scientific, engineering, and planning communities around the island share these concerns and have made repeated requests to USACE to address them, but it does not appear that local views are being adequately considered.

Local stakeholders in Puerto Rico have also raised concerns about USACE's public engagement efforts, and the degree to which community voices are being meaningfully heard. We are pleased that Assistant Secretary Connor has directed USACE to develop and execute a community engagement plan for the suite of projects in Puerto Rico, and are interested in hearing any additional actions USACE intends on pursuing to improve public participation. We also greatly appreciate the congressional briefing regarding the projects by USACE on March 23, 2023, which USACE allowed community stakeholders to attend as well.

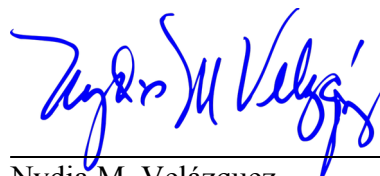
We are confident that convening an independent technical advisory board would be in the best interests of USACE and the communities of Puerto Rico, and believe local project sponsors are increasingly in favor of this path forward as well. We also welcome feedback regarding the authorities and resources that USACE may need from Congress to undertake this endeavor.

Thank you for your attention to this important matter. If you have any questions, please contact Sachin C. Mathur at Sachin_Mathur@gillibrand.senate.gov or Rachel A. Román at Rachel.Roman@mail.house.gov.

Sincerely,



Kirsten Gillibrand
United States Senator



Nydia M. Velázquez
Member of Congress

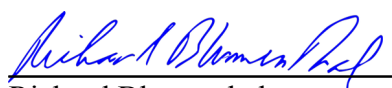
Congress of the United States
Washington, DC 20515



Charles E. Schumer
United States Senator



Robert Menendez
United States Senator



Richard Blumenthal
United States Senator



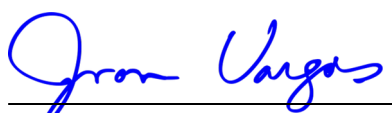
Adriano Espaillat
Member of Congress



Alexandria Ocasio-Cortez
Member of Congress



Ritchie Torres
Member of Congress



Juan Vargas
Member of Congress



Eleanor Holmes Norton
Member of Congress



Rashida Tlaib
Member of Congress



Barbara Lee
Member of Congress

Congress of the United States
Washington, DC 20515



Summer Lee
Member of Congress



Grace Meng
Member of Congress



Yvette D. Clarke
Member of Congress



André Carson
Member of Congress



Dan Goldman
Member of Congress

Ariel E. Lugo
1528 Calle Támesis, Urb. El Paraíso
San Juan, Puerto Rico 00926
aelugo1234@gmail.com

May 29, 2023

Gretchen S. Ehlinger, Ph.D.
Chief, Environmental Branch
USACE, Jacksonville, District
701 San Marco Boulevard
Jacksonville, Florida 32207-8175

Dear Dr. Ehlinger,

This is in response to your 18 April 2023 letter asking for public scoping comments regarding the proposed construction of the “remainder” of the Puerto Nuevo project in San Juan, Puerto Rico (from now on ‘Project’). This request is based on a NEPA requirement that your agency must comply with. Your letter makes it clear that the scoping comments are to be limited to (a) replacement of four bridges, channel improvements, and construction of a stilling basin and (b) the Bechara Industrial Area and Luis Muñoz Marín Park Lagoon, which are proposed for material re-handling and placing and staging. As this is the first scoping opportunity that I have had for this Project, which was authorized in 1986, I use this opportunity to raise NEPA-related issues that have so far been ignored by your agency.

The statement about the current population of San Juan in your letter (150,000 residents) caught my attention because in the 1984 estimate of the cost-benefit of the Project, your agency stated that the population was expected to rise from 240,122 in 1980 to about 325,000 by 2035. You estimated cost-benefits accordingly. In the post hurricane María revalidation report of A.D. (Jr.) Kelly (reference in the appendix) an eight percent population growth was assumed to 347,052 residents in 2018. This value was also used for cost- benefit estimates and overall justification of the Project. You can understand why the low population estimate in your letter caught my eye. This number captures the problem that your agency is having in justifying this Project whose costs have soared to levels that were difficult to predict in 1984 when the first NEPA analysis was made public.

When the first environmental analysis was made, the Project was justified by the increasing population levels, increasing economic activity, expanding urban cover, and extremely high discharge levels by the Río Piedras (you call it Río Puerto Nuevo). These high levels of population density, economic activity, and discharge rates have been consistently used through the Kelly report. Yet, the actual reality of the watershed has been the opposite of what your agency has been using in documents, i.e., the population has declined sharply, the urban cover had been exaggerated, and the river

discharge was 30 to 40 percent lower than estimated initially by USACE. Thankfully, new staff in your district office has worked with the community to radically modify the nature of the Project. What is being proposed today is dramatically different from what was justified through previous NEPA analyses. However, your agency has refused to conduct a NEPA process that better fits the reality under which huge amounts of federal (public) funds are being spent. Instead, you ask us (the public) to comment on bridges and staging areas, while significant environmental issues remain unattended (see Table 1 below).

Table 1 is based on a comparison of USACE documents prior to 2020 with the Kelly report in 2020. These are the scoping issues that need to be addressed in a NEPA document for the Project as currently designed. Most of these issues have not been analyzed publicly and the Project has been fragmented with construction and design proceeding under the false assumption that contracts have no effects on each other.

Issue raised by Lugo et al. (2013) *	Recognized in Kelly (2020)?	Resolved in Kelly (2020)?
Incorrect assumptions about human population, economics, and land cover.	No, it repeats the assumption	No
Not considering the stormwater infrastructure.	No	No
Asserting water quality would improve with channelization.	Not addressed	No
Expecting that erosion and sedimentation would be minor issues.	Yes, erosion and sedimentation are recognized as a major unaddressed issue	No
Incomplete assessment of the ecological values of the watershed.	No	No
Obsolete benefit to cost ratio.	No, assumes population is growing when it is decreasing. Potential additional and known costs are ignored	No
Not considering climate change.	Yes, but postpones analysis to the future.	No
Not considering sea level rise.	Yes, but postpones analysis to the future	No
Not considering the worst-case scenario for channel discharge into San Juan Bay.	No	No
Incorrect assumptions about human population, economics, and land cover.	No, continues to assume rosy scenarios	No

*The reader is referred to Lugo et al. (2013) for the technical arguments of why these issues are important to Project design, benefit cost analysis, and functional effectiveness.

Each of the ten issues in Table 1 are significant and influence not only the environment but the cost of the Project. The next table below summarizes the historic cost-benefit of the project based on your public documents.

What the USACE has reported as benefit to cost ratio for the Río Piedras channelization.

Year/Alternative	Benefits (B)	Costs (C)	B/C
1984	659,100,000	253,500,000	2.6
1991	728,400,000	303,500,000	2.4
2020/1	2,480,000,000	2,217,000,000*	1.1
2020/3	2,416,258,620	1,579,254,000*	1.5

*Sunk costs of \$420 million not included in the cost estimate.

It is not clear to the public how the benefits of the Project multiply significantly despite a lowering in population and an equally precipitous decline in economic activity (Puerto Rico went bankrupt). It is also unknown what the current benefit-cost of the Project is, because there appears to be a sense that Congress has given a green light to use new funding without regards to prudent use of public resources. I strongly suggest that the NEPA exercise includes a realistic and well-documented cost-benefit analysis. If the cost to benefit ratio is below 1, it should be so disclosed, particularly considering the congressional mandate that you received after hurricane María.


I conclude my letter with several issues with significant environmental effects that have yet to be publicly disclosed through a NEPA analysis.

- **Sediments.** It is a known fact that rivers in Puerto Rico carry high sediment loads during peak flow events. For the Río Piedras, peak sediment fluxes have been measured at about 100,000 tons per day. After hurricane María, USACE estimated 440,000 cubic yards of sedimentation within the completed lower channels. The blockage from sediment in those channels resulted in a conveyance area reduction ranging between 20 and 46 percent in the Río Piedras just downstream of the confluence wall. The public does not know the cost of the emergency repairs that USACE ordered, but this will be a recurrent maintenance cost that the Commonwealth of Puerto Rico will have to cover in the future. Knowing that the Commonwealth does not maintain other USACE projects, such as Río Bayamon or Río Bucaná, NEPA scoping should disclose issues that affect the future maintenance cost, plus the health and safety of populations living next to these water bodies. Also important is the role of the Project in accelerating sediment movement towards the estuary and the sedimentation of lower channels. This is an environmental process that requires discussion of its ecological effects on the biota. The issue of sedimentation of the estuary also affects other USACE projects in San Juan, which are discussed next.
- **Other USACE projects in San Juan Bay.** Your agency is also responsible for the dredging of San Juan Bay, a critical water body for the economic health of Puerto Rico. The Project merged the Río Piedras with the Caño Martín Peña where USACE also has a major restoration project. The dredging of the Bay is locally sponsored by the Puerto Rico Ports Authority, the Caño Martín Peña restoration is sponsored by ENLACE (a corporation formed for that purpose), and the Project by the Department of Natural Resources and the Environment. Three projects, three local sponsors, one location where they all merge and affect each

other, and zero coordination. I would think that a NEPA exercise would consider the interaction of three major federal projects funded through one agency (USACE). They have a common hydrology, a common biota, and a common ecological functioning. How can they be successfully completed if there is no coordination of causes and effects?

- **Sea level rise.** The public has not seen the analysis of the effects of sea level rise on this Project. The one ecological issue that merits attention is the salinization of the estuary, particularly at low flows. It is known that channelization dries watersheds because it exports excess water during rainfall events, isolates the river from surrounding riparian systems, and no source of steady freshwater is available during droughts. Normally, natural rivers maintain a low but steady flow of freshwater during the dry season. The Project can reduce flow during droughts and increase the salinization of the estuary. What are the effects of this change on the biota? A sound NEPA analysis will consider this effect, particularly under a sea level rise scenario. While your engineers have overdesigned the Project to consider increased sea level, no analysis of sea level rise on the biota has been undertaken nor on the landward distance of seawater incursion, including potential effects on local freshwater aquifers.
- **University of Puerto Rico Botanical Gardens.** Experimental agricultural lands in the Botanical Garden are being considered for the re-routing of quebrada Buena Vista, presumably because fixing the channel of the quebrada *in situ* is too expensive. Your proposal is to affect public lands used for long-term educational and research purposes while living the old channel to deteriorate and contribute to the degradation of a community that is underrepresented, aging, and of low economic status (a social justice issue). Your NEPA process should analyze this social-ecological issue, particularly considering the high funding level that Congress bestowed on your agency.

Finally, the channelization Project, over its long history, has consistently used obsolete or erroneous information to justify a hydrological design that was out of proportion with its social-ecological context. As your agency became more open to listening to others, particularly the affected communities and independent scientists, the Project design changed dramatically. I and others believe that the design can be further improved, but to do so a stronger analysis is needed. The NEPA process allows for such an effort, but only if it is not fragmented. We need a new holistic look at this Project. It is a Project that runs through the center of the capital city of Puerto Rico and affects other USACE projects in the same location. This NEPA process is probably the last opportunity to add common sense to a gigantic and important project. Done right, it can serve as a model to other equally impactful projects that Congress authorized for this island.



Ariel E. Lugo
Emeritus Scientist
USDA Forest Service
International Institute of Tropical Forestry

Appendix 1. My analysis of the Kelly Report validating the continuation of the channelization of the Río Piedras. This was done in June 2020. I retired from federal service since then.

**RÍO PUERTO NUEVO FLOOD CONTROL PROJECT PUERTO RICO
CONTINUING CONSTRUCTION VALIDATION REPORT:
SUMMARY AND EVALUATION**

Ariel E. Lugo
International Institute of Tropical Forestry
USDA Forest Service
Ceiba 2500, Jardín Botánico sur, Río Piedras, PR 00926-1115

INTRODUCTION

This is an analysis of the contents of the Continuing Construction Validation report (Kelly 2020) for the channelization of the Río Piedras¹ (from now on referred as the project) by the United States Army Corps of Engineers (USCOE). This report has three main parts. First, an objective depiction of the contents of the Kelly report. Second, an interpretation of the contents with attention to unresolved issues and implications to the viability of the project. Finally, recommendations for actions needed to overcome the limitations of the USCOE approach in this project. The main conclusion of my analysis is that the USCOE has not established the viability of this project and the likely outcome could be the waste of taxpayers' money. For a history of the project as captured in official documents of the USCOE, refer to Lugo et al. (2013).

PART I. CONTENTS OF THE KELLY REPORT

Executive Summary

The report recommends a re-scoped strategy for implementing the project that reflects changed conditions and cost increases that have ensued since original project authorization. It optimizes the economic efficiency of the project. The Chief of Engineers has the discretionary authority to proceed with the recommendations without any further consideration from Congress. The project has the opportunity to continue given the authorization of the Bipartisan Budget Act of 2018 (P.L. 115-123 (BBA)). The report seeks to establish that the remaining features of the project are environmentally acceptable, economically justified, and feasible from an engineering and design point of view.

The original authorization in 1986 was for \$234 million dollars. The population of the río Piedras watershed is estimated at 151,000 residents. The authorized activities for the project includes concrete sheet pilings, planted mangroves, trapezoidal earth channel lined with rip rap and mangroves, concrete rectangular channel improvements, silting and debris basins, all bridge relocations along the main river (except the Constitution and de

¹ The US Corps of Engineers continues to confuse the río Piedras with río Puerto Nuevo. The report has two maps with contradictory information, one (Fig. 1) labeling the river correctly as río Piedras, the other doing so incorrectly as río Puerto Nuevo (Fig. ES-1). Consult Lugo et al (2011) for historic map documentation of the Corps mistaken identity for the river. I will use the correct designation of río Piedras.

Diego bridges), and the relocation of approximately 18 structures. The plan also authorizes channel improvements and bridge relocations to the main tributaries: quebrada Margarita, quebrada Josefina, quebrada Doña Ana, quebrada Buena Vista, and quebrada Guarancanal. The authorized plan also includes recreation improvements as well as mitigation in the form of mangrove planting. Figure ES-1 in the report has a map of the original project features and landmarks.

The passage of hurricane María caused record rains and flooding in the project's watershed. Sediment deposition within the project was of significant concern. The capacity of the USGS stream gaging station 50049100 at the Piñero Avenue bridge was exceeded. Estimated peak flow at this site was not available to the report authors, but high-water marks were measured at 3.31 feet above ground just south of F.D. Roosevelt Avenue bridge, 3.51 feet above ground at Calle Alsacia of Puerto Nuevo, and 2.26 feet aboveground just upstream from the confluence of quebrada Doña Ana and Josefina tributaries. Table ES-1 of the report contains the status of all contracts associated with the project and Fig. 2 in the report has the geographic distribution of each contract.

The economic aspect of the project are summarized in Table ES-3 of the report, which contains the assumptions, costs, benefits, and benefit to cost ratio. Assumptions include using a discount rate of 2.875 percent, and a 50-year period of analysis. Dollars are estimated on an annual basis to October 2015 price level for both costs and benefits. The numbers in the executive summary do not coincide exactly with the numbers in Table ES-3². The executive summary contains the following approximate costs and benefits: Remaining costs (without sunk cost) to complete full construction of the authorized project in FY 19 dollars is 1.864 B or 2.217 B fully funded. Therefore, three strategies were developed for completing the project, which involved changes to the initial authorization.

Strategy 1 completes the project as designed in ten years. The fully funded cost for strategy 1 is \$2.217 billion (without sunk cost) and a completion date of 2031. This strategy has a benefit/cost of 1.12. The average annual NED (National Economic Development account) cost based on October 2015 price levels is \$105 million and the total average annual benefit is \$125 million.

Strategy 2 evaluates expedited construction of the entire authorized project with a four-year completion date. Because of numerous potential obstacles and greater cost of construction, this strategy was not evaluated or considered further. It would have increased the cost of the project one order of magnitude.

Strategy 3 is the recommended strategy. It completes 97 percent of the authorized project. It overcomes the insufficient funding available from Congress to complete the whole project and addresses changes that have occurred in the basin since the project was authorized. It completes construction of supplemental contracts 1 to 7 in Table ES-1 and desists from contract 8, which appears not to be economically nor technically justified. The fully funded cost of strategy 3 is \$1,579,254,000 without sunk costs. Obligations would be completed by 2025 and construction ended by 2032 with a benefit to cost ratio of 1.53.

² I infer that the reason why the numbers in the cost benefit Table ES-3 are not the same as in Table ES-2 is because the cost benefit table includes calculations of discount rates, and a 50-year period of analysis, plus other transformations that are not clear to the public like me.

The average annual NED cost at October 2019 price levels is \$74 million and the total average annual benefits at the corresponding price levels are \$120 million.

The costs of strategies 1 and 3 are the sum of the cost of each individual supplemental contract (Table E-2 of the report). The difference in the total cost is accounted by not funding supplemental contract 8. The sunk cost is \$420 million per TPCS (not defined; could be for each strategy). In the calculation of the benefit cost ratio, benefits are those previously estimated. They include primary average annual benefits (flood risk management at October 2015 price levels) of \$124,153,000 and 119,758,000 for strategies 1 and 3 respectively, and incidental average annual recreation benefits of \$1,089,000 for both strategies.

The project is deemed in compliance with all applicable environmental laws and thus no additional NEPA (National Environmental Policy Act) analysis since the 2002 Environmental Assessment is needed. If strategy 3 requires future design refinements, those might require supplemental NEPA evaluation.

Study Overview

Total project first cost is \$2.28 billion including sunk costs and obligated funds to date. The fully funded cost is \$2.637 billion. Without sunk cost, the respective quantities are \$1.865 billion and \$2.217 billion.

Section 1.2. The report recognizes that the main river is the río Piedras and provides a map, Figure 1 in the Kelly report, that contradicts its own Figure ES-1. This short and enlightened statement is quickly ignored in the rest of the text and report figures.

The authorized project consists of improvements to 11.2 miles of río Piedras and its tributaries, including 1.66 miles of concrete-lined trapezoidal channel, 9.54 miles of concrete-lined channel (5.1 miles of which are high velocity or supercritical flow³) and 2,160 feet of double box culverts. Also included are two baffle pier stilling areas, two high velocity confluences with tributary streams Buena Vista diversion channel and Guarancanal channel, two upstream debris basins with side overflow or lateral spillways, and other project relocations, including bridge replacements and modifications. There are several recreation features such as a walking trail and a boat ramp. Complexity is increased by the presence of all three of the city's inflows to the regional sewage treatment plant and its outfall lines. The project also affects the city's principal power and water supplies, gas lines, sanitary sewer lines, secondary storm sewer lines, highway bridges, and telephone, fiber optics, and cable television lines.

Section 1.3. The original benefit to cost ratio in 1986 was 2.6 to 1. In 1991, the ratio was 2.4 to 1. By 2011 it was concluded that the total project cost had exceeded the authorized 902 limit, i.e., the project had exceeded the maximum amount that a project may cost. A post authorization report to seek additional funds was not endorsed by the South Atlantic Division office in 2014. Another round of reports to overcome the shortage of funds was also rejected but eventually overruled by Congressional action after hurricane María.

³ The report does not indicate if supercritical flow channels will be elevated channels as originally proposed.

Section 1.4. The Department of Natural Resources and the Environment (DNRE) continues to be the project sponsor.

Section 1.5. All bridges over the main river will be replaced with the exception of the Constitution and the De Diego bridges. To protect the Norzagaray bridge, the channel will be diverted some 115 m (0.07 miles) to the west and a new PR-1 bridge will be constructed. Bridges to be replaced are the Roosevelt Avenue, Las Americas expressway and its two eastern ramps, the J.T. Piñero, the Notre Dame, and the PR 176 Hwy bridge. Some 18 structures will be relocated.

In the description of the various segments of the project, the report mentions 'physical model tests' used to evaluate designs. Results and assumptions for those tests are not reported. However, the notion of the Buena Vista Diversion Channel is presented as a permanent improvement that eliminated the need for extensive loss of home sites along quebrada Buena Vista. This is a new alignment for the channel excavated through an undeveloped area near the University of Puerto Rico Agricultural Experiment Station and the proposed Botanical Gardens⁴. Such diversion will have a high velocity confluence with the main channel. The same is true for the Guarancanal channel at its confluence with the río Piedras channel, i.e., high velocity confluence.

Design features such as planters, rest stops, benches and the path surface will be used to achieve maximum compatibility. Screening the channel through the use of berms, fencing materials, and plants will be done to reduce its visibility and increase its acceptability to the local population.

Section 1.5.1. The items of local cooperation, i.e., the responsibility of the government of Puerto Rico, have been modified (updated) in accordance with a February 20, 2019, Project Cooperation Agreement Amendment 1. The items are:

1. Provide a cash contribution equal to 5 percent of the total project costs.
2. Provide all lands, easements, rights of way, relocations, and dredged material disposal areas (LERRD).
3. Provide an additional cash payment when the sum of items 1 and 2 are less than 25 percent of the total project costs.
4. Operate and maintain the project after completion, including accomplishment of any need replacement or rehabilitation of any of its components (OMR&R).
5. Hold and save the US free from damages due to the construction or subsequent maintenance of the project, except damages due to the fault or negligence of the US or its contractors.
6. Prevent future encroachments which might interfere with proper functioning of the project.
7. Participate in and comply with applicable Federal floodplain management and flood insurance programs pursuant to public law 99-662; and
8. Provide guidance and leadership to prevent unwise future developments in the floodplain.

⁴ This is an erroneous statement as the University of Puerto Rico Botanical Gardens was established in 1971, well before the USCOE began the channelization project for the río Piedras.

Section 1.5.2. Total LERRD costs are 36,610,000 or 12 percent of the total flood control cost of the project. Puerto Rico has to contribute \$15,164,200 in cash plus all the cost of the LERRD, plus a share in the cost for recreation cost (\$232,000). Total PR share is \$75,966,000 based on the 1991 General Design Memorandum (GDM).

Section 1.6. Total sunk cost is equivalent to obligated funds and was \$420 million as of October 2019. Included in those costs are preconstruction, engineering and design (PED), construction, LERRD's, and other associated costs. Figure 1 of this summary contains the history of federal funding for the channelization project since it was authorized.

Overview of Changed Conditions Since Authorization

Section 2.2. Between 1986 and 2018 there has been a net population and economic increase in the project area. The population of Puerto Rico increased from 3 million to 3.66 million (7.6 percent) and of San Juan from 319,068 to 347,052 (8.8 percent). Dozens of new commercial properties, hundreds of new residential properties, and a number of unique structures have been constructed, including Plaza las Americas and the San Juan Natatorium. The 55,000 structures have a total depreciated exposure value of \$14.6 billion, 90 percent (\$13.2 billion) being residential, 9 percent (\$1.32 billion) commercial, and 1 percent (\$84 million) public buildings. The average value of residential structures was \$194,000, for multifamily residential structure it was \$386,000, for commercial structure it was \$356,000, and for public structures \$177,000. The overall structure value was \$238,000. About 70,000 people live in first floor elevation equal or lower than the elevation associated with the 100-year event. For structures with elevations equal or lower than the 250-year event, the population is 80,000. Based on the 2010 census, the average household had 2.68 persons, and multifamily units contained 30 units. Life loss was not estimated the estimates for economic justifications are based on reduced damages. The average flooding above the first-floor elevation is equal to 1.78 feet; 935 structures have flood depths greater than three feet.

Section 2.3. Contains engineering conditions and changes as a result of alteration of hydrologic conditions in the city. The analysis is done by contract number. The old natural río Piedras channel that entered directly into San Juan Harbor, is now known as the Bechara Canal. The project will comply with all USACE regulations, policies, and community of practice standards. Therefore, the following five items need to be addressed but are not now available:

1. Update rainfall depth and distribution analyses, adding the 200-yr return interval level.
2. Update hydraulic routing of flood flows; use two-dimensional (instead of 1-dimensional as before) routing models for supercritical flows. Include a new hydrographic survey will be required to account for aggradation and erosion of sediment over the years since last modeled for design purposes.
3. Investigate sea level rise through model sensitivity analyses.
4. Results from H & H analyses to be used for NEPA updates, if needed.
5. Redraw new flood maps (residual floods) for popular knowledge and future use.

Section 2.4. This is a section on how sea level change and climate change will be analyzed. It addresses the use of the USACE web-based sea level change calculator. This section describes current USACE procedures with this topic and points out that normally these issues are addressed at the end of the 50-year and 100-year project life cycles.

Performance of the Project and Impacts of Hurricane María

Hydrographic surveys indicated that the eroded sediment suspended in the flow settled out in the channel downstream of the De Diego bridges, both in the río Piedras and Margarita channels. This caused uncompleted portions of the channels to fail to provide the authorized level of flood damage reduction benefits as a result of a 100-year event. Further sedimentation is expected from other storm events, which reduce the hydraulic capacity of channels and reduce their flood control benefits. After hurricane María, they estimated 440,000 cubic yards of sedimentation within the completed lower channels. The blockage from sediment in those channels results in a conveyance area reduction ranging between 20 and 46 percent in the río Piedras just downstream of the confluence wall. Emergency repairs were ordered.

Environmental Conditions

This section describes the USACE reasoning for asserting the lack of environmental impact of the project and their efforts to mitigate and comply with environmental laws and regulations.

Economic Analysis for the Total Authorized Project

Section 5.1. The significant increase in the cost of the project is due to various reasons. One is inflation. The original cost in current price levels is \$528,593,000 or 23 percent of the current cost. The rest of the increase is due to weather effects, construction issues, real estate cost increases, changed designed standards, unknown underground utilities, and changed site conditions.

Section 5.1.2. Risk analysis resulted in a contingency of approximately \$418,883,000, reflecting contingencies for both cost and schedule risk analyses. The most significant cost risk driver was the design development stage and historic change order or modification growth (accounting for 21.1 to 22.4 percent of the statistical cost estimate variance). Part of the problem is that the design was developed using a General Design Memorandum developed in 1991, which did not capture the conditions of the project area. Acquisition planning to accommodate funding stream and Relocations may not happen in time contributed 43.7 percent and 17.1 percent of the statistical cost estimate variance.

Section 5.2 deals with real estate costs including lands, easements, rights of way, relocations, and disposal sites (LERRDs). The estimated cost of lands, easements and rights-of-ways (LER) included in the 2015 gross appraisal is \$545 million without contingency with \$327 million accounted by completed features. The SAJ PB-3 estimate for LER was \$25.3 based on the 1991 General design Memorandum and escalated to 2015. All future LER contracts are estimated to be approximately \$287.5 million including \$15.4

million for contingency. \$139.4 million are estimated for relocations and \$178.6 million for roads and bridges.

Section 5.3 details the economic update of the project, including modeling (economic and hydrologic), and estimates of damage with and without the project.

Section 5.3.3 and 5.3.4. Benefits have been recalculated and updated, and generally increased with the inclusion of the walking trail and boat ramp. \$40.8 million in benefits during construction, \$1,089,000 in recreation benefits.

Section 5.3.5. The project will generate an estimated \$796,950 million in interests between 1995 to 2032, of which \$344.95 are sunk.

Risk and Uncertainty

This relatively long part of the study addresses risk and uncertainty from a variety of perspectives. The narrative makes clear that the validation report is an internal document that does not analyze different project alternatives and does reformulate of the ongoing project. No study risk is associated with this effort. The risks analyzed include economic risks, real estate risks, and outcome risks. Uncertainties include the estimates of damages to structures and vehicles, uncertainty in elevation measurements using LIDAR, uncertainty in the estimates of the content to structure value ratio, and so on. As an example, the ten-bullet section 6.3.1 on the uncertainties in the engineering analysis includes the deterioration of existing structures, the effects on design and construction of the H & H analysis update, and the risk of the effects of climate change and sea level rise. The report asserts that the identified risks and uncertainties are low and will be addressed in the engineering design (PED) phases. Problems with the real estate laws of Puerto Rico, and their lack of familiarity by the federal agency, are identified as risks, as they delay actions and contract delivery. Similarly, locating owners dispersed by the hurricanes of 2017 are also causes of concern. The various bulleted lists are enlightening and include the sluggish progress of contractors that so far have taken longer than expected to complete those contracts associated with the beginning of the project. The report states that without the completion of contracts two to seven, only 11 percent of the flood damage to 70,000 people will be mitigated. In other words, without the project, they expect that \$112.5 million in damages will remain in the basin. With the project, the vast majority of the 70,000 people will no longer be at risk of flooding even by the 250-year event.

Implementation Strategies

Details of the three strategies described above are given in this part of the report, including a sub-basin by sub-basin damages assessment and benefits with and without the project. The project subdivided the river basin into 24 sub-basins to analyze project costs and benefits and display the areas covered by each contract. In the recommended strategy 3, contract 8 is eliminated except the part dealing with the debris basin within University of Puerto Rico's lands, which is now part of contract 6. By eliminating contract 8, the Old Aqueduct at the University of Puerto Rico Agriculture Experiment Station is protected.

Section 7.2. This section itemizes amendments to the cooperation agreements with the Commonwealth. This is a section of the report that outlines the responsibilities of the Commonwealth and its Department of Natural Resources and the Environment with the project.

Recommendation

The report ends with the recommendation of proceeding with the río Piedras flood control project utilizing strategy 3, the re-scoped project shown in their Figure 5. "...the re-scoped project would be deemed complete as the functional elements identified for construction are economically justified, technically feasible and environmentally acceptable and are within the discretion of the Chief's authority" (p 78). Figure 5, page 77, in the report shows the new debris basin and deviation of the river channel affecting the lands of Jardín Botánico norte.

PART II. INTERPRETATION OF THE KELLY REPORT

The Kelly report makes it clear that its objective is not to re-analyze the technical basis that justify a project in progress. However, the content of the Kelly report addresses all the subjects that concerned Lugo et al. (2013), even if it does not resolve them. Moreover, Kelly (2020) addresses (without resolving and assuming they are all minor) uncertainty and risk factors not addressed before by the USCOE in documents for this project. The section on risks and uncertainty is a welcome addition to public disclosure regarding this project. However, without close examination of available data and assumptions used, it remains to be established that the rosy scenario presented in part 6 of the report is the correct one. Nevertheless, the Kelly report provides a new benchmark for a critical analysis of a project that is important for the city of San Juan and its future resilience in light of a changing social-ecological-and technological environment.

Benefit to Cost Estimate

Before entering an interpretation of the Kelly report, the issue of the high cost of the project deserves attention. The initial estimated cost of the project was \$234 million and according to the Kelly report, the revised fully funded cost is \$2.637 billion with sunk costs included. This new estimate is over eleven times higher than the original cost. Kelly attributes 23 percent of the increased cost to inflation, leaving about 80 percent of the increased costs unexplained. By 2011, the project had exceeded the maximum cost that a project can cost under current regulation. Twice after that milestone, the project request for additional funding was rejected, effectively terminating the project. One of the many possible causes for the over expenditures in this project was the Designed Memorandum of 1991. The Monte Carlo simulation discussed in section 5.1.2 revealed that the General Design Memorandum of 1991, upon which the project was conceptualized, failed to capture conditions in the project area. This simulation validates the public statements that were raised in Lugo et al. (2013) but not listened to by the USACE. Moreover, section 5.2 shows additional problems with estimate of real estate costs between the 2015 gross appraisal and the SAJ PB-3 cost based on the 1991 General Design Memorandum. These large discrepancies create uncertainty in the accuracy or reality of past and present estimates used to justify the project.

The project design failed to consider the sedimentation problem, for which there were data available (Lugo et al. 2011). Hurricane María deposited 440,000 cubic yards of sediment on the completed portion of the channelization project and reduced channel effectiveness by 46 percent. Such events will occur many times in the upcoming decades and will erode the economic basis of the project as well as its hydrological effectiveness.

After the passage of hurricane María, the US Congress was generous with its appropriations and allowed the project to ignore its woes with the high costs of controlling a tropical river. I argue that the items that the USCOE ignored in the past, and that now the Kelly report glosses over for future consideration, are partially responsible for cost overruns and influence the future effectiveness of the project. The rate of expenditure after hurricane María has increased sharply (Fig. 1) and is bound continue to increase even more as the project encounters all the issues that its planners have so far ignored. The benefit cost ratio of the project has steadily declined since 1984 (Table below) is lower than before and one has to wonder how is possible for benefits to continue to climb in a basin with a depress economy and reduced population density. The USCOE may find itself managing a project with greater costs than benefits as it continues to push a project designed for a river basin that no longer exists in terms of its social and ecological conditions.

What the USCOE has reported as benefit to cost ratio for the río Piedras channelization.

Year/Alternative	Benefits (B)	Costs (C)	B/C
1984	659,100,000	253,500,000	2.6
1991	728,400,000	303,500,000	2.4
2020/1	2,480,000,000	2,217,000,000*	1.1
2020/3	2,416,258,620	1,579,254,000*	1.5

*Sunk costs of \$420 million not included in the cost estimate.

Issues Not Addressed and Deferred to the Future

A review of USCOE documents regarding the río Piedras channelization project identified nine issues that were poorly attended by the USCOE and which could hinder the effectiveness of the project if left unattended (Lugo et al. (2013). The listing of risks and uncertainties in Kelly (2020) validates several of the issues raised by Lugo et al. (2013), but does not evaluate them, passing on the future a comprehensive evaluation of the project. The Kelly (2020) report repeats some of the previous misconceptions used to justify the project and leaves unexplained some of the details of the benefit to cost ratio calculation. In spite of the uncertainty and identified risks, the Kelly report re-scopes the project and recommends a strategy for its completion.

As an example of the problem with the approach in Kelly (2020), consider the analysis of the population within the river watershed. This analysis is critical for the benefit cost calculation, because more people and structures mean greater flood control benefits and a higher benefit to cost ratio. Kelly uses population data for 2010, ignoring what has happened in San Juan and Puerto Rico since that time. Therefore, the benefit to cost ratio is based on a growing urban population and thriving economic activity. In fact, population and economic activity were thriving between the 1980s and 2010. But between 2010 and today, the population has declines significantly as has the economic activity in the river

basin. By using population extrapolations based on a trend that no longer exists in the basin, Kelly (2020) is inflating the benefits and need of the project. The issue of using the wrong population extrapolation was diagrammed in Fig. 6 of Lugo et al. (2013) and should not be news to the USCOE.

Another example is how the hydrology of the basin is dealt with. Given all the hydrological changes that have occurred in the basin since the project was authorized, as well as expected future changes, there is a need to update hydrology and hydraulic (H & H) studies to assure effective PED's (engineering designs). This is recognized by Kelly (2020), but none H & H analyses have been conducted and all are delayed to the future, when they could likely cause dramatic changes in design, costs, and benefits.

The section on sea level and climate change is a welcome addition to USCOE documents dealing with this project. However, the discussion in that section of the report (section 2.4) appears tentative and not completely convincing. About 50 years will have pass between the time the project was authorized and its projected completion (1986 to 2032). The original project design had no consideration of sea level change, and none has been added, including in this report. It is imperative to consider critical changes in hydrology, climate, and sea levels before any more resources are committed to the original design.

I recognize that Kelly (2020) is not a technical analysis of the project, but it validates many of the concerns expressed earlier by simply mentioning them. In my evaluation, I recognize the value of the disclosures in the Kelly report, but also point out that unless technically considered, these issues remain as obstacles to the successful completion of the project. The issues raised by Lugo et al. (2013) and how Kelly dealt with them are listed in the following table.

Issue raised by Lugo et al. (2013)*	Recognized in Kelly (2020)?	Resolved in Kelly (2020)?
Incorrect assumptions about human population, economics, and land cover.	No, it repeats the assumption	No
Not considering the stormwater infrastructure.	No	No
Asserting water quality would improve with channelization.	Not addressed	No
Expecting that erosion and sedimentation would be minor issues.	Yes, erosion and sedimentation are recognized as a major unaddressed issue	No
Incomplete assessment of the ecological values of the watershed.	No	No
Obsolete benefit to cost ratio.	No, assumes population is growing when it is decreasing. Potential	No

	additional and known costs are ignored	
Not considering climate change.	Yes, but postpones analysis to the future.	No
Not considering sea level rise.	Yes, but postpones analysis to the future	No
Not considering the worst-case scenario for channel discharge into San Juan Bay.	No	No
Incorrect assumptions about human population, economics, and land cover.	No, continues to assume rosy scenarios	No

*The reader is referred to Lugo et al. (2013) for the technical arguments of why these issues are important to project design, benefit cost analysis, and functional effectiveness.

Other Issues

Although hurricane María provided the justification for the funds to rescope and re-start the project, the reanalysis was done without definitive information about the actual effects of hurricane María. Perhaps as a precaution, the analysis added the 200-year event level to the analysis.

It is not clear how the diversion of the channel to protect the Norzagaray bridge will affect University lands, other lands, and the DNRE building. Lands from the University of Puerto Rico are affected with the new design and the addition of the quebrada Buena Vista diversion, plus the diversion of the río Piedras to avoid the Old Aqueduct.

The effort to screen the concrete channel suggests that as proposed earlier, the channel will be elevated from the ground surface to achieve super critical flow. This item is not disclosed in Kelly (2020) and requires a clear response from the USCOE.

PART III. RECOMMENDATIONS FOR OVERCOMING THE LIMITATIONS OF THE KELLY REPORT

An independent and critical analysis of the economics of the project, including real estate, and benefit to cost analysis is urgently needed.

All the questions that have been formulated regarding the assumption of hydrological and economic models need responses (see the appendix for hydrological questions).

Alert the University community about the proposal to use lands in the Botanical Gardens north as a debris basin and the new diversion of the río Piedras at that location towards the west of its current alignment.

Make sure the Commonwealth Government understands the amendments to the Cooperative Agreement with the USCOE

The bicycle pathway from Lomas Verdes avenue to the San Juan Regional Park opens possibilities for coordination with the Enrique Marti Coll Lineal Park.

The USCOE needs to provide the public with consistent numbers and avoid the discrepancies in the Kelly report numbers between the Executive Summary and the body of the report. Also, less use of undefined acronyms and between explanations of procedures used to manipulate economic data would greatly enhance the value of public reports.

LITERATURE CITED

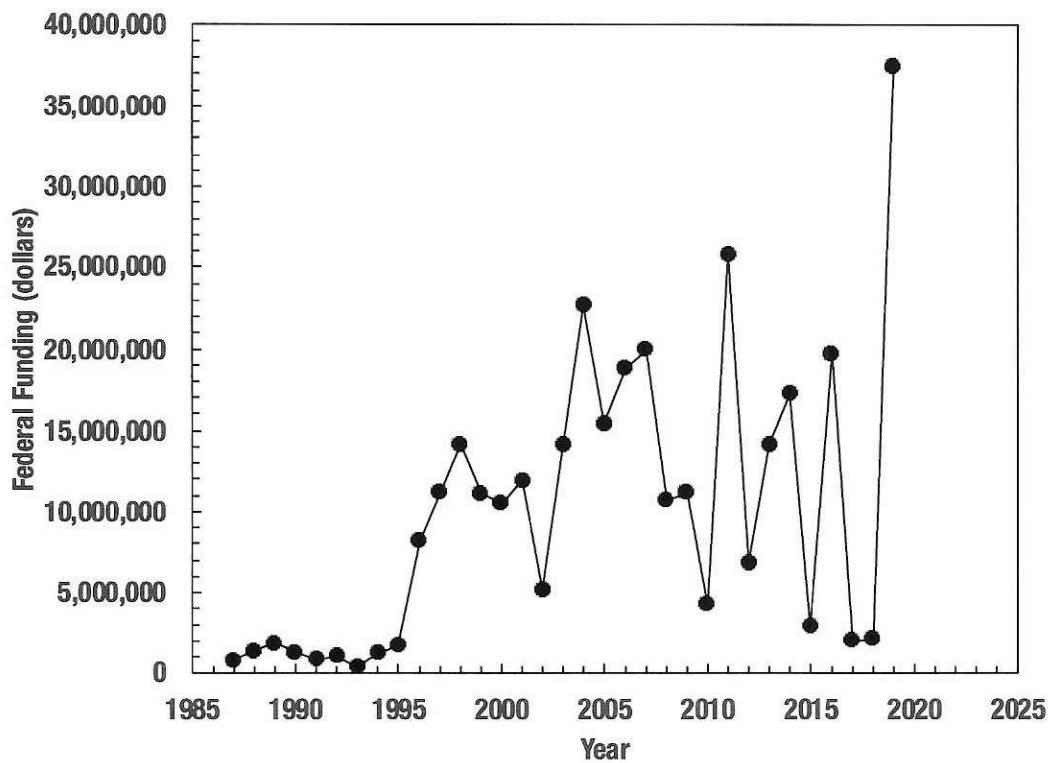
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LIST OF FIGURES

Figure 1. Annual federal funding rate for the río Piedras river flood control project. Data are from Kelly (2020).



APPENDIX

Example of technical questions that require responses so that the public might understand if the procedures used to design the río Piedras channelization are credible and realistic. Similar set of questions are needed for the benefit to cost economic analysis.

- Find more information about the hydrological modeling that was used in the latest iteration of the design and develop key questions we want to be answered by the USACE project team (e.g., assumptions, variables, scale, sea-level rise considerations, etc.) -

I would be interested in knowing the identification of the hydrologic model that is replacing the physical model used previously by the Corps. Once the identification of that model is known, it will be possible to analyze its assumptions and applicability to the río Piedras.

In general, some of the key questions involved include:

The data base used to calibrate the model, how updated it is, how long-term it is.

The topography used, is it updated?

Is the modeling watershed scale or just for the project area? Does it include the behavior of a canalized Caño Martín Peña? And its watershed?

How is sea level rise being handled?

Are extreme events considered?

How much green cover is considered in the modeling? What is the water-retention capacity of the city?

What assumptions does the model have relative to the normal drainage of the city? How effective is that drainage under normal conditions? Under different levels of rainfall?

Is the worse future condition considered? The worse condition would be an extreme rainfall event on land coupled with an ocean surge on San Juan Bay.

Will the box canals be raised as proposed before?

How will critical fluxes be handled?

Is the hydrologic model connected to a sediment and water quality model?

How will canals be self-cleaned?

How will canalization affect the sediment budget of the San Juan Bay, and will it require more frequent maintenance to avoid affecting the traffic of ships in the Bay?



**Testimony for National
Environmental Justice
Advisory Council (NEJAC)
July 2023, San Juan**

Comments addressed to:

*Matthew Tejada, Director
Office of Environmental Justice
U.S. Environmental Protection Agency*

KW Shockey, ED Ahora Inc.

08/8/2023

Introduction

Hello my name is Kevin Shockey. I am the executive Director of Ahora. Ahora Inc is a 501(3)(c) charitable organization registered here in Puerto Rico. Our mission is to advance sustainable and resilient agriculture on the island. Our vision is a food sovereign Puerto Rico. As I see things now, our vision is unattainable without increasing the resilience of communities.

I also sit on the leadership council of the Anthropocene Alliance. The Anthropocene Alliance is the nation's largest coalition of frontline communities fighting for climate and environmental justice. The alliance has 200 member-communities in 40 U.S. states and territories. They are impacted by flooding, toxic waste, wildfires, drought and heat – all compounded by reckless development and climate change.

I'm here to address your request for feedback for Puerto Rico. Through my climate justice work I have listened to heartbreaking stories from across the nation. In many ways Puerto Rico's plight is no different. Except it is; where states have equal representation in the halls of the US Congress, Puerto Rico has none. Where states have active city councils or governments to rely on, Puerto Rico must make do with only a few channels to have their voices heard. We will be, are, and have been, one of the worst climate victims in the United States. Only a major coordinated effort across many agencies can address the lack of climate mitigation and adaptation required.

In summary, I'd like to present our observations on environmental justice for the communities across the Cordillera Mountains. First let's consider some general demographics for these communities. In general, 49.4% are living below the poverty line, and 99% identify as People of Color. EPA's Environmental Justice Screen puts the community in the 97th percentile for Low Income, 98th for Demographic Index, and in the 95th percentile for Population with Less than High School Education.

Many are self-employed; as there is little agriculture or industry in these remote areas. Most farms have switched to subsistence farming. After Congress passed the bipartisan infrastructure law, Secretary Regan commented that: "when you look at the billions of dollars that will go for water infrastructure, a lot of those resources are zero-interest or low-interest loans or grants (Regan, 2022). That is wonderful news, except without my involvement in the Anthropocene Alliance, we would never know

about these resources. Most of my peers have no knowledge of these programs and are unlikely to hear about them. That is the real challenge in our struggle for justice.

Finally, I'd like to address your request for comments by focusing on one specific community in Guayama county. I hope by sharing my work and experience with Barrio Carite it can provide direction on how to bring environmental justice to similar communities across Puerto Rico. Like many new charities here, our origin begins in the aftermath of hurricanes Irma and Maria.

Drawing on my background and contacts in the technology industry, I had the privilege to hear from industry experts. I also got to hear from remote communities from around the island. I came away from these experiences with a distinct impression of inequality. Further, there was a disconnect between storm-ravaged communities in remote Puerto Rico and the Capital. While the Fortaleza, the governor's mansion, announced that Puerto Rico was open for business, citizens were living in damaged homes without any essential services. Even months later they lived without water, power, or telephones.

Two major takeaways from our experiences with hurricanes Irma, Maria, and Fiona. First, the cost of replacing antiquated infrastructure is two-fold. With an aging infrastructure, the long-term costs of replacing this infrastructure are significant. In addition, the cost of replacements are higher following a disaster.

The collective needs of the Carite community are driven by their isolation, not only their physical remoteness but politically and in terms of population. They are often overlooked. As mentioned, when the rest of the island is open for business Carite is left to defend for itself. Their needs in order of priority are:

1. Establishing affordable high-speed access to the Internet is critical for Carite to solve their other infrastructure needs. It is the only type of infrastructure investment that acts as a multiplier, an enabler. Along with digital technologies, a vibrant Internet community has the capability to organize, educate and lead collective action. If the EPA's Thriving Community Technical Assistance Center in Puerto Rico is to meet their goals of locating, training, and supporting communities, then wide adoption of the high-speed Internet is crucial.
2. Establishing a capacity building program. The disparity between the demands of climate mitigation and adaptation and the capacity within the Carite community will be insurmountable without considerable education. Most citizens live month

to month and do not have time to mitigate the impacts of extreme weather.

3. Hardening mountainous roads against extreme run-off events caused by extreme rainfall amounts. The mountain roads represent a major threat to isolated and remote areas of communities. In general, the lack of runoff management from torrential rains regularly washes out streets and roads. Strong flows of water destroy bridges stranding entire communities.
4. During the recovery of Maria, we learned that our antiquated electric system prevented a more speedy restoration of service. Our water system is similar in that much of it was installed more than a half a century ago. In addition, all remote pumping stations are electric powered and lack uninterruptible renewable energy solutions. We need to harden our state-run and small water systems.
5. Establishing local micro-grids to distribute generation and transportation. Energy generation for the island happens on the coasts. The energy is then transported across electric poles to arrive in remote communities. These power lines are prone to fail during extreme weather, interrupting service for extended periods.

The poor condition of these areas for Barrio Carite are clear. What is not as clear is the overall chilling effect on perceptions within the community. Feelings of abandonment and desolation are common within residents. In general, residents feel a lack of government attention and representation. They've shared their concerns with politicians who visit the community. They become further convinced of their perceptions, when repairs and improvements never arrive.

Before sharing our observations, I want to draw your attention to the plight of the Carite State Park from which Barrio Carite and Lake Carite draw their names. According to Holdrige's Life Zone Maps (Lugo 1997), Carite is a Sub-Tropical Wet Forest. The park surrounds some of Puerto Rico's prized wet and rain forests, and hosts irreplaceable habitat for the densest collections of organisms in Puerto Rico.

Since the passing of hurricanes Irma and Maria, Carite State Park has been abandoned. Before it featured welcoming recreation areas and 25 trails. The hurricanes laid waste to the park. Only 1 recreation area and 1 trail remain. The rest have been lost to storm damage and inadequate maintenance. Home to some of Puerto Rico's most endangered species, the Sub-Tropical Wet Forest of Carite desperately needs rehabilitation. As the source to the La Plata watershed system, the Carite State Park is invaluable to the freshwater drinking needs of Puerto Rico.

The stark difference between post-Maria funds received by El Yunque National Park and Carite State Park must be brought into balance. The economic value of Carite State Park to the region must be preserved for climate justice to come to Barrio Carite.

Recommendations for Water Infrastructure Technical Assistance

Continuing my focus on the remote mountainous areas in the central areas of both Puerto Rico and The Virgin Islands, securing access to freshwater is key to climate adaptation. Years of construction run-off and frequent mudslides have filled our fresh waterways. Illegal sewage discharge has filled our reservoirs with significant quantities of unwanted bacteria. Our reservoirs hold only a portion of what they did when created. These challenges must be aggressively met to ensure Puerto Rico has sufficient freshwater to survive climate-change related droughts to come.

About 4% of Puerto Rico's population must supply their own water, through non-Puerto Rico Aqueduct and Sewer Authority systems or by traveling somewhere that does supply water. Most of these communities are in rural areas in the mountainous region of the island making traveling somewhere else more of a challenge. With subsistence agriculture and farming as the main source of livelihood, the water users in these remote and impoverished areas and communities have limited or no ability to pay for "traditional" water services (Massy).

Beyond ensuring uninterrupted energy for rural water distribution, the opportunity for implementing nature-based solutions is high. There are opportunities for improving the resilience of roadsides and farm borders with run-off management solutions. There is considerable potential for simple rain collection systems. As the frequency of drought and deluge cycles increase, the stress on freshwater systems will increase.

Environmental and Climate Justice Program Funding Opportunities

According to research by Pfefferbaum and Wyche (2008) the adaptive capacities that impact rural resilience are: Information and Communication, Community Competence, Social Capital, and Economic Development. Our recommendations for infrastructure and capacity building target these four capacities. The following discussions details the activities that provide the most beneficial impact within Puerto Rico, and potentially the Virgin Islands.

Infrastructure

To imagine what environmental justice looks like for rural Puerto Rico, we must consider investments in four areas. None of them should be a surprise. To face climate change, islanders need Internet, Power, Water, and Safe Roads. Since they are so obvious I will not devote much of my testimony to describe the need. What's also obvious are the technologies needed to implement solutions to these needs. What's not so obvious is how to get communities engaged, trained and able to pursue federal funding.

First, we must ensure that the remote mountainous areas of Puerto Rico have access to affordable high-speed Internet. Preferably utilizing buried cables to minimize the impacts of extreme weather. Second, Barrio Carite is plagued by frequent power outages. We recommend the implementation of renewable microgrids through the central area of Puerto Rico. Microgrids will minimize the distance power is transported, reducing the impacts of localized failures. Third, it is estimated that throughout the central mountainous region there are hundreds of small water systems serving 300 thousand customers. The EPA needs to ensure that these providers and customers receive safe drinking water. Only by hardening these systems can any form of resilience arrive in these communities. An essential piece of the hardening process will be to provide uninterruptible power. The combination of microgrids and hardened small water systems provides stability in the face of climate change. Finally, Puerto Rico's aging road system in the central mountainous regions represents a major risk to residents and business owners. With each massive deluge, uncontrolled run-off regularly washes away area bridges and roads. In many remote communities a communal bridge or county road is the only way in or out. When disaster happens, residents and business owners commonly get stranded in their houses.

Capacity Building

A free and open Internet combined with digital literacy is the only possibility to increase capacity in the region. It is the foundation that will provide stability in the region's long road towards environmental justice. Most grant and loan opportunities will require using the Internet to submit applications and proposals. Only a massive education program can bridge the digital divide that exists in the rural mountainous regions.

Further, when citizens have access to high-speed Internet they can participate more fully in the ever-changing advancements in climate disaster mitigation and adaptation. New online tools allow citizens to monitor the condition of flood-prone waterways and potential mudslide hazards. With high-speed Internet and the right skills, community-based organizations can tap into the growing set of public data. Ahora highly recommends ensuring that once installed, citizens can join the high-speed Internet and make their homes, farms, and neighborhoods more resilient.

Using any one of the community organizing tools available online, we foresee an increased engagement with neighbors. If the EPA's Thriving Community Technical Assistance Center in Puerto Rico is to meet their goals of locating, training, and supporting communities facing the worst climate risk, then wide adoption of the high-speed Internet is crucial.

Representative inclusion on the high-speed Internet will also make emerging technologies accessible. As Puerto Rico continues to import the majority of its food from one port, Jacksonville FL, its food insecurity has never been more acute. During the 20th century, the agrarian ecosystem prominent in 1900 has been decimated. In research conducted by Ahora, we discovered that the number of farms in Puerto Rico dropped from 66,000 farms in 1910 to approximately 8,000 in 2018 (Ahora 2023).

Even the most successful farms share two major problems. First, the annual risk of losing entire seasons due to extreme weather. And second, a constant shortage of agrarian workers. While we need to adapt all of our ways of food production to harden it against extreme weather, it will require retraining our entire farm resource base. Precision agriculture holds the potential to reduce the labor demands to harvest crops. It also has the ability to reduce the amount of pesticides used on our farms.

Finally, as specified in the objectives of EPA's TC-TACS, building capacity across Puerto Rico is the only path towards environmental justice. We must address the number of risks represented throughout the Central Cordillera region as well around our rivers, creeks and lakes. To guarantee the future for safe drinking water will require thousands of green and gray solutions. Besides ensuring organizations can apply for funding, they must have access to the technical knowledge and resources to guide them.

What has kept organizations from applying for funding?

While technically, all of Puerto Rico is rural, there is rural and then there is rural. Disproportionally, the mountainous regions on the interior of the island receive little attention or resources. This is represented in the lack of funding and a shortage of institutions or community based-organizations in the area. It is also obvious in the lack of infrastructure work in the region.

Reasons organizations have difficulty applying for Federal assistance.

1. The lack of general literacy presents a large obstacle for citizens and organizations to apply for funding. There are a combination of factors that limit their access. There are limitations for weak English as a second language speakers as well as general illiteracy as a result of a high ratio of school dropouts. The inability to respond to requests in English is a major barrier.
2. A common challenge is that applicants seek help, but their efforts are met with refusals. Often the resources necessary to respond effectively or understand the reasons behind refusals are not available. After more than 500 years of colonization, citizens are accustomed to having their needs unmet.
3. Most residents, farmers, and small business owners are unaware of the benefits available. Due to sparse cell phone coverage and Internet access, this area is often not reached by public outreach campaigns. With print media lacking any strong distribution in these areas AM radio remains one of the only medias reaching the area.
4. As mentioned, the lack of high-speed Internet presents a major barrier to accessing funding. Without the necessary literacy or physical Internet access, grants are inaccessible.
5. Weakening the area's overall ability to apply for funding is that there are few community-based organizations and insufficient resources. A legacy of insufficient investment quietly silences Barrio Carite and closes doors before anyone ever learns they were open.

Just last week, former U.S. White House science adviser John Holdren stated: "The hubris is in imagining that we are in control. The reality is that our power to transform the environment has far exceeded our understanding of the consequences and our capacity to change course" (AP 2023). I'm here today to lift up our voice and demand

justice for Puerto Rico. Without a wholesale boost in capacity and infrastructure, Puerto Rico will only see its climate disasters grow more intense and more costly. Thank you!

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Appendix A - Images

Figure A: The Holdridge Life Zone System (Lugo, 97)

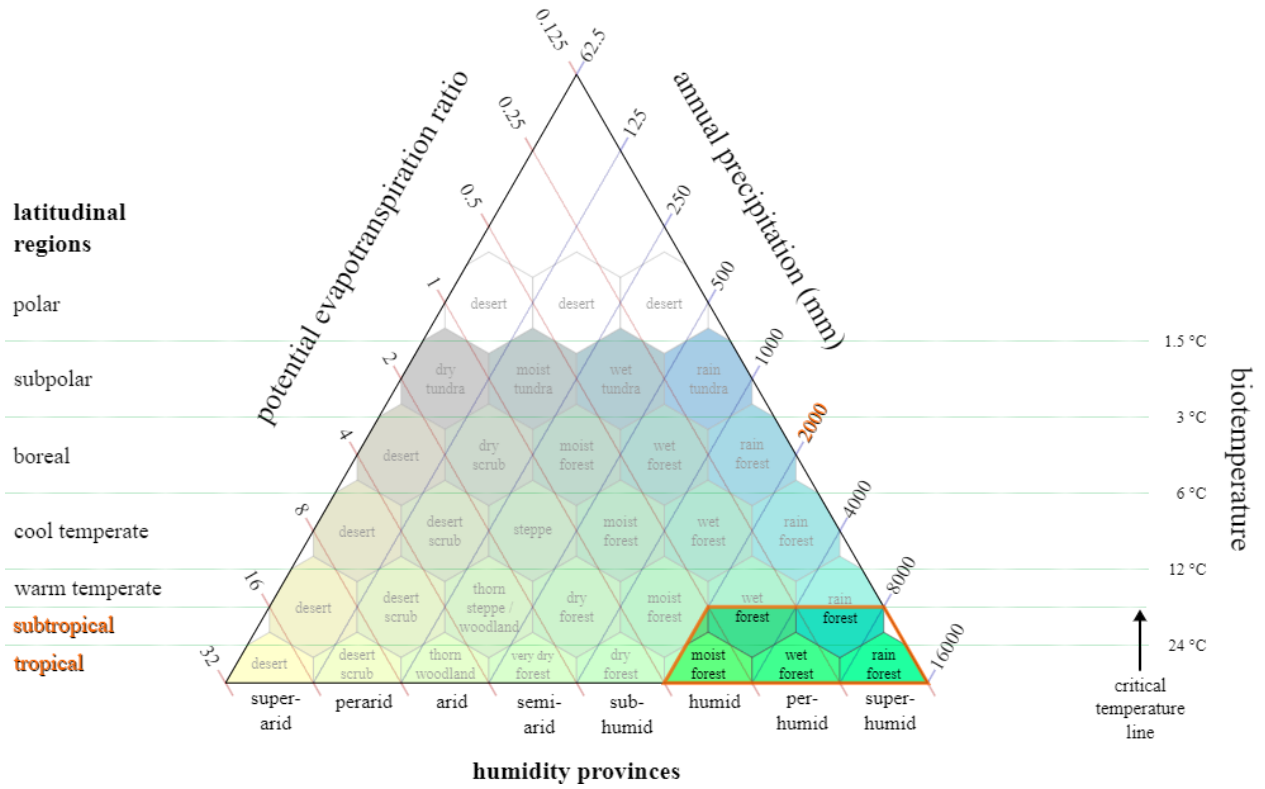


Figure B, C, D, and E: Images of Abandoned Recreation Area in Carite State Park



Appendix B - Resident Profile

Roberto Carasquillo

Summary

1. 60 years old in October
2. Trade(s): Farming, Plowing, Construction
3. Education: None
4. Literacy: Oral Spanish
5. Income: Approximately \$12,600

Background

I met Roberto Carasquillo earlier this year. He was an instructor I had during an agroecological course at Carite 3.0, a family farm in the area. Part of our instruction included learning how to plow using an ox driven plow. Roberto was our instructor. He is a stalwart member of Barrio Carite. Known and loved throughout the community, Roberto has lived in the area all of his life.

Life

Due to the mountainous terrain in the area it is impossible to use any form of mechanized farming. For hundreds of years plowmen in Puerto Rico have tilled the lands that feed the island. Roberto knows the land in the area intimately. Beyond plowing he is a master gardener. Annually supplementing his income through raising vegetables, and fruit.

Roberto lives alone alongside his brothers on land that they purchased during the 1990s. Offering acres at sometimes less than \$100 an acre, the government insisted the lands be farmed. And they were, when the owners were young. While Roberto has a cellular phone he does not have a computer or Internet connection in his home.



Impacts on Life

In conversations with Roberto he shared that decades ago, he spent his time moving from one farm to the next, tilling neighbors and farmer's land. He would work non-stop from January through May. Now he struggles to find 3 months of work. Between bureaucratic inaction by the USDA, the local PR State DA, and politicians, farming is disappearing. Farm land purchased in the 90s to promote agriculture now lies fallow.



Driven by decades of extreme weather and a government bankruptcy, Barrio Carite has a distressed look. This led Post-Maria to the government closing a school in the area. State Road 179 is the only connection to the North and South. Since Maria citizens were forced to endure dozens of narrowings in 179 due to unrepaired landslides. With no apparent savings, Roberto owns a

beaten truck damaged by transporting cattle over a crumbling 179. When his truck fails, it is not uncommon to see Roberto leading his oxen up and down State Road 179. Imagine seeing that!

Photos from the author. Above: Roberto tutors me during the agroecological course. Below: Rona and Bandera.



To: National Environmental Justice Advisory Council (NEJAC), EPA Administrator July 26, 2023

From: Guarda Río, community-based group in the Río Piedras watershed

Thank you for this opportunity to express our community's concern regarding the United States Army Corps of Engineers (USACE), Jacksonville District Rio Puerto Nuevo Flood Damage Reduction Project for the Río Piedras in San Juan, Puerto Rico.

Guarda Río is a community-based organization composed mostly of long-term residents from communities along the Río Piedras and other interested stakeholders and citizens. All have come together to protect and steward the only river of the capital city of San Juan. Collectively we seek to ensure that many of the environmental, social, health, and recreational services this green corridor provides is present for families, children, the elderly, people from all walks of life besides other living organisms to enjoy, and to be a benefit for future generations.

This project, previously known as the Rio Puerto Nuevo Flood Control, has its origins in the 1970's. It has currently completed various contracts at the river's mouth and is now working its way up the main channel, due to the recent allocation of approximately 3 billion dollars of public funds assigned to Recuperation Projects after hurricanes Irma and Maria. As a community grass root group, we expect to change the proposed channelization of our urban watershed and its course into one that responds to our current ecological, social and cultural realities. In this way we aspire to spearhead a new vision for projects that reflect environmental justice, intersectional inclusive public participatory design and decision making for our and all watersheds in Puerto Rico. This will contribute to make communities safer and at the same time make the most conscientious use of public funds. Currently this ecological unit, green corridor, is being threatened by a project to construct a concrete channel along 9.5 miles of the river. The Río Piedras/Puerto Nuevo Flood Damage Reduction Project (from now on Project) by the US Army Corps of Engineers (USACE) is the largest and most costly infrastructure project (nearly 3 billion dollars) of the 45 projects that the USACE has underway in Puerto Rico since hurricane María. We agree that some structural flood control measures and improvements of existing tributary channels and bridges are needed as many of us live with the frequent threat of flooding. Yet, **we also understand that the measures taken in the Project will not solve our flood problems because our years living in the area close to the river (in some cases for generations) have shown us that it is the city's stormwater system, and not the river, that causes our greatest flood issues.**

We believe that the Project can create more harm than benefit to the surrounding communities and we need your help addressing the following concerns:

- 1) According to NEPA and President Biden's Justice 40 initiative, infrastructure project of this magnitude should have a just, inclusive, and transparent infrastructure design accompanied by environmental analysis to ensure that underserved communities are involved and benefit from infrastructure investment. **None of these policies have been followed.** The Environmental Impact Statement (EIS) was based on a design from 1978 and approved in 1984-1985, nearly four decades ago. It was circulated in English for only 30 days and none of the 200 residents we have spoken to know or recall any public hearings then (many have lived their entire lives here). The USACE rejects developing a new and unfragmented EIS in spite of fundamental changes in Project design since the EIS was approved; and regardless of dramatic social, ecological, and economic changes in the basin. We are told that internal USACE consultations have determined that a new EIS process will not be triggered but instead will only

involve amendments to the 7 supplemental contracts - separately. Therefore, not only are the environmental impacts on a river ecosystem being analyzed in fragments (not as a whole ecosystem or watershed), but the process will also not involve public review and the communities most affected will not have their voices heard. Mr. Reagan, as the head of the Environmental Protection Agency, we respectfully request your involvement to ensure that our communities have access to a truly participatory and transparent NEPA process for this Project.

2) We are aware that the Biden administration recognizes forests, green infrastructure, and other nature-based solutions as powerful tools in mitigating against climate change. And we know that the USACE has its own ongoing efforts to bring nature-based solutions and hybrid infrastructure to fruition in other states through the Engineering with Nature division. Yet, the potential to use these nature-based solutions to mitigate flooding in the Río Piedras project has not been explored, as it does not appear to have been in the all the other announced projects in Puerto Rico. Developing a new EIS process for this project will give us more opportunity to explore other solutions, like engineering with nature, work with the Municipality of San Juan to improve the stormwater infrastructure to address to root of the problem, and thus design an improved, cost and community effective Project that all communities can enjoy, now and in the future. Communities in the US Island Territories deserve flood infrastructure projects at par with 21st century visions and technologies just as much as our co-citizens on the mainland.

3) We are only beginning to experience how Climate Change exacerbates extreme weather. The Caribbean Area is modeled to become ever drier. Our community has already been experiencing year after year increments and day-to-day challenges of very high temperatures which seem to establish a new normal, accompanied by more extended droughts, changes in plant and animal behavior, as well as seeing some occasional intense rain events. We worry that mitigation infrastructure projects that focus on only one hazard will exacerbate other hazards as the channelization of the Rio Piedras will.

In the riverine forest along the route of the Rio Piedras towards the Bay of San Juan, we have a wonderful natural resource that is a refuge for us and for wildlife in land and water. It is a hub of activity for neighbors as well as visitors from other parts of San Juan, who are attracted by its richness and beauty. It is an example of where Green Cities ought to be going, and not walking away from. Its ecosystem services counteract heat, drought, air and sound pollution, isolation and allow us to plant minor crops, have access to water, exercise, release stress, and make community. Therefore, we staunchly believe this project As Is- is going to harm us. In the actual project USACE is only focusing on how to transport a certain water volume they calculate may arrive one day and flushing it quickly into the Bay. It is not considering the river as a complex system. It is not considering the landscape. It is not considering the interaction between water from land to river and inversely. It is not considering the services of the river into the Estuary and along its way. It is not considering the complexities of Climate Change. The USACE has limited themselves only to the physical channel to find all their solutions within it. For one thing, this tunnel vision project renders the river dead by turning it into a flat shallow hot barren course not fit for anything except to empty out the volume that one day may come. The 1984 project never considered to step into the landscape and study various options of mitigating rapid runoff into the river. As an example, while highly urban, the area has several large green patches as well as other wide spaces that can be refitted to act as a system of water management when needed. In the realm of possibilities of the 21st Century planners are applying this and many more features of Nature into the solutions of today. But this needs room.

USACE's project must expand its scope outside of the stream channel. EWN must be brought into the assignment, and allowed to explore the wider landscape for those solutions that integrated together will produce the best possible project. This project must include in its primary considerations, the value that ecosystem services provide today and into the future to all of us.

Thank you,

Guarda Ríó



Full Name (First and Last): Stacy Larancuent

Name of Organization or Community: Resident of Cataño

City and State: Cataño, Puerto Rico

Telephone Number: 7876890508

E-mail Address: larancuents@gmail.com

Type of Comment: Written Comment Only

Subject of Comment is Relevant to:: Other

Brief description about your recommendation relevant to your selection above:

Puerto Rico should leave behind fossil fuel. It should seek to increase the installation of solar systems. A solar system for the whole Island is accessible, affordable and grants us energy security.

Projects like Queremos Sol and Casa Pueblo in the municipality of Adjuntas are a concrete and real example.

www.queremosolpr.com

www.casapueblo.org/que-significa-50consol

Region 6

AR, LA, NM, OK, and TX

Full Name (First and Last): Lauro Silva

Name of Organization or Community: SV Partners for Environmental Justice

City and State: Albuquerque

Telephone Number: 15057204539

E-mail Address: alcoat1944@gmail.com

Type of Comment: Present Comment at Meeting

Subject of Comment is Relevant to:: Cumulative Impacts Framework Charge

Brief description about your recommendation relevant to your selection above:

Working with community on developing a community driven impacts regulation on cumulative impacts, health, environment, equity impacts

Full Name (First and Last): Shiv Srivastava

Name of Organization or Community: Fenceline Watch

City and State: Houston Texas

Telephone Number: 8326876966

E-mail Address: fencelinewatch@gmail.com

Type of Comment: Present Comment at Meeting

Subject of Comment is Relevant to:: Cumulative Impacts Framework Charge

Brief description about your recommendation relevant to your selection above:

Comments on the cumulative impacts framework charge being considered by the NEJAC

Full Name (First and Last): Yvette Arellano

Name of Organization or Community: Fenceline Watch

City and State: Houston

Telephone Number: 281.919.5762

E-mail Address: fencelinewatch@gmail.com

Type of Comment: Written Comment Only

Subject of Comment is Relevant to:: Cumulative Impacts Framework Charge

Brief description about your recommendation relevant to your selection above:

Fenceline Watch wants NEJAC to include the following issues in considering cumulative impacts. We want NEJAC to recommend that EPA :

- Study the interaction of chemicals when they mix in the atmosphere and how the sun and extreme heat change the chemical's dangers to public health.
- We also want them to consider homes that run on window AC v central AC as a factor in cumulative health impact analysis.

We recommend that refining and chemical facilities that go through corporate restructuring or change names and ownership maintain a record of violation history linked to new ownership for 5 years after the facilities have gone through merging or new ownership.

We recommend that NEJAC pressure EPA to include the following in the Draft National Plastics Strategy. Plastics is the problem, not mismanagement - precursors to plastic production include toxic and mutagenic harm to EJ communities. The building blocks of plastic materials are poisonous, including the hundreds of harmful additives and chemicals used to give plastic products various characteristics and attributes. Communities, workers, and consumers of plastic products are inevitably and ultimately exposed to thousands of toxic chemicals and additives that leak out of plastics during use or are released during recycling and disposal. Humans are exposed to innumerable chemicals and plastic particles through various routes, including ingestion, inhalation, and direct skin contact. Substances associated with plastics can disrupt endocrine (hormonal) functions, lead to multiple types of cancer, impair organ function, suppress immune systems, and disrupt development in children, right from the embryo stage.

- Schedule a phase-out and prohibition of chemicals that cause multigenerational, reproductive, and developmental harm (endocrine disruptors)

- Set production caps and plan for long-term phase out and prohibition of excessive and problematic plastic.

- End federal subsidies for entities, including procurement of resources, refinement and chemical production of feedstocks and additives.

- Have clear-cut mechanisms to hold petrochemical majors and major plastics user sectors (FMCGs) financially accountable to deal with legacy wastes, and for any burden on low-income, Low Middle Income and Middle-Income countries in improving waste management.

- Focus not only on alternative materials as substitutes to plastics, but also alternative cultures and systems— cultures and systems of reuse and refill , for example – and alternative forms and scales of production, distribution and consumption (local, smaller-scale for local markets) that will enrich and strengthen local economies;

-Urge for chemical transparency in plastic production. Publicly available and easily accessible labeling system of all chemicals used in the manufacturing process, including additives. Communities near production, refining, and procurement should have access to chemicals and associated long and short-term health impacts. These should be publicly available and easily accessible. One method would be to list them in the permitting process through a plain-language summary. (Language translation and interpretation services must be available.)

-Reject false solutions, including chemical recycling, pyrolysis, incinerations, open-burning, and waste to energy

-In increasing public education, especially on upstream impacts regarding human health impact.

RECCOMEND TO THE EPA TO SUPPORT COMMUNITY REQUESTS FOR THE STATE DEPARTMENT IN GLOBAL PLASTIC TREATY NEGOTIATIONS to reject consensus voting as it diminishes the power of smaller disproportionately impacted - global south countries. Instead, support the democratic voting process, truly representative voting processes.

National Environmental Justice Advisory Council (NEJAC) Public Comment Submission

EPA-HQ-OEJECR-2023-0101

Submitted electronically via: nejac@epa.gov



Mx. Yvette Arellano
Executive Director,
Mr. Shiv Srivastava
Policy Research
Fencelinewatch@gmail.com

Submitted electronically:

nejac@epa.gov

National Environmental Justice Advisory Council
Public Comment Submission

July 27, 2023,

Fenceline Watch is a community-based, environmental justice organization in the East End of Houston, Texas; our mission is to eradicate toxic multi-generational harm in communities living along the fenceline of industry. We advocate to eliminate disparities of environmentally vulnerable communities and seek to increase effective access to justice- including redress, remedy, and inclusion in the decision-making process. We thank EPA for the opportunity to provide written comment to the National Environmental Justice Advisory Council. Our comment will focus on three key areas: suggestions regarding the proposed Cumulative Impacts Framework Charge, the Global Plastic Treaty, and the Draft National Strategy to Prevent Plastic Pollution.

A. NEJAC FOR CUMULATIVE IMPACTS

As the National Environmental Justice Advisory Council works on the Cumulative Impacts Framework Charge, we request NEJAC recommend to EPA that the framework of the cumulative impact include the following:

- Study the interaction of chemicals when they mix in the atmosphere and how the sun and extreme heat change the chemicals' dangers to public health.
- Consideration and recognition of households that run on window AC units vs central AC as cumulative health impact analysis factor.
- Consider windrose patterns and concentrations of emitting facilities in a community. Do not just select a random radius.
- We recommend that refining and chemical facilities that go through corporate restructuring or changes in name or ownership maintain a record of violation history linked to new ownership for 5 years after the facilities have gone through merging or new ownership.



B. GLOBAL PLASTICS TREATY - INC SESSION OF THE INTERGOVERNMENTAL NEGOTIATING COMMITTEE ON PLASTIC POLLUTION

The Global Plastic Treaty, currently being negotiated through The United Nations Environment Programme (UNEP)¹, is the first global treaty to tackle the plastic pollution problem. The process is broken into five meetings, known as the Intergovernmental Negotiating Committee (INC) one through five. The first round of the Intergovernmental Negotiating Committee, INC-1, took place from November through December of 2022; this November, we will enter the third round of negotiations, known as INC-3. The process is currently in the phase in which the focus of the treaty is being narrowed and the manner in which change will be implemented. An agreement must be reached by 2024, meaning that it is imperative that NEJAC act now to pressure the current US position on addressing the plastics climate crisis and protect environmental justice communities. Plastic is a human health crisis. The US is approaching the Global Plastic Treaty as an interagency agreed negotiation space, meaning that EPA is empowered to advocate on this issue along with DOE, State Dept., GSA, and others. It is critical for this recommendation to be uplifted by NEJAC to the EPA as it engages with the State Department during these negotiations. Just as the NEJAC was formed to uplift the voices of marginalized, vulnerable environmental justice communities within our nation, the NEJAC should push EPA to do the same in global negotiations.

We recommend the following:

- EPA to support community requests for the State Department in the Global Plastic Treaty negotiations to reject consensus voting as it diminishes the power of smaller, disproportionately impacted-global south countries. Rather, support a truly representative voting process. Currently, the United States is aligned with the United Arab Emirates, Japan, Saudi Arabia, China, and other larger, more developed nations at the expense of vulnerable global south communities disproportionately impacted by the plastics crisis.

¹ <https://www.unep.org/inc-plastic-pollution>



C. NEJAC FOR DRAFT NATIONAL PLASTICS STRATEGY

Plastics is the problem, not mismanagement - precursors to plastic production include toxic and mutagenic harm to EJ communities. The building blocks of plastic materials are poisonous, including the hundreds of harmful additives and chemicals used to give plastic products various characteristics and attributes. Communities, workers, and consumers of plastic products are inevitably and ultimately exposed to thousands of toxic chemicals and additives that leak out of plastics during use or are released during extraction of fossil fuels, chemical feedstock production, recycling and disposal. Humans are exposed to innumerable chemicals and plastic particles through various routes, including ingestion, inhalation, and direct skin contact. Substances associated with plastics can disrupt endocrine (hormonal) functions, lead to multiple types of cancer, impair organ function, suppress immune systems, and disrupt development in children right from the embryo stage.

One of the US strategies to tackle the plastic crisis is creating a National Action Plan, of which the proposed Draft National Strategy to Prevent Plastic Pollution² is intended to serve. Communities do not support National Action Plans, we need a global legally binding instrument; however, we understand that we must push on all fronts. We recognize that the US is undermining the global process by fomenting support with financial incentives in support of National Action Plans through public-private partnerships, namely End Plastic Pollution International Collaborative (EPPIC), which is providing up to \$14.5 million to help launch this effort³. With this understanding, the following are our recommendations to the NEJAC to bring to EPA:

- Demand a scheduled phase-out and prohibition of chemicals that cause multigenerational, reproductive, and developmental harm (endocrine disruptors)
- Set production caps and plan for long-term phase out and prohibition of excessive and problematic plastic. **No more plastic production facility permits.**
- **End federal subsidies** for entities, including procurement of resources, refinement, and chemical production of feedstocks and additives.
- Have clear-cut mechanisms to hold petrochemical majors and major plastics user sectors (FMCGs) financially accountable to deal with legacy wastes and for any

²https://www.epa.gov/system/files/documents/2023-04/Draft_National_Strategy_to_Prevent_Plastic_Pollution.pdf

³ <https://www.state.gov/under-secretary-fernandez-leads-u-s-delegation-to-plastic-pollution-negotiations-in-paris/>



burden on low-income, low-middle Income, and middle-income countries in improving waste management.

- Push for chemical transparency in plastic production—including publicly available and easily accessible labeling system of all chemicals used in the manufacturing process, including additives. Communities near production, refining, and procurement should have access to chemicals and associated long and short-term health impacts. These should be publicly available and easily accessible. One method would be to list them in the permitting process through a plain-language summary (language translation and interpretation services must be available.)
- Reject false solutions, including chemical recycling, pyrolysis, incinerations, open-burning, and waste to energy.
- In increasing public education, especially on upstream impacts regarding human health impact.

We would like to thank the National Environmental Justice Advisory Council (NEJAC) for the opportunity to comment, as the council is charged with cumulative justice framework and bottom-up concerns issues disproportionately affecting environmental justice communities. We would also like to offer Fenceline Watch as a resource as the agency moves to address multigenerational harm, access to information, and the plastic pollution crisis exacerbating toxic harm.

Thank you!

Yvette Arellano
(they/them)
Founder | Director, Fenceline Watch

Shiv Srivastava
(he/him)
Policy Researcher, Fenceline Watch

Region 9

AZ, CA, HI, NV, American Samoa,
Commonwealth of the Northern
Mariana Islands, Federal States of
Micronesia, Guam, Marshall Islands, and
Republic of Palau

Victoria Celeste Rojas Raygoza
2785 Jurado Ave
Hacienda Heights, CA 91745
vcrojas5@gmail.com; (310) 910-8801

August 14, 2023

1200 Pennsylvania Avenue, NW
(MC-2201A)
Washington, D.C. 20460
United States of America

Dear Madam Karen Martin:

My name is Victoria Celeste Rojas Raygoza, and I am a senior at Bishop Amat High School in La Puente, California.

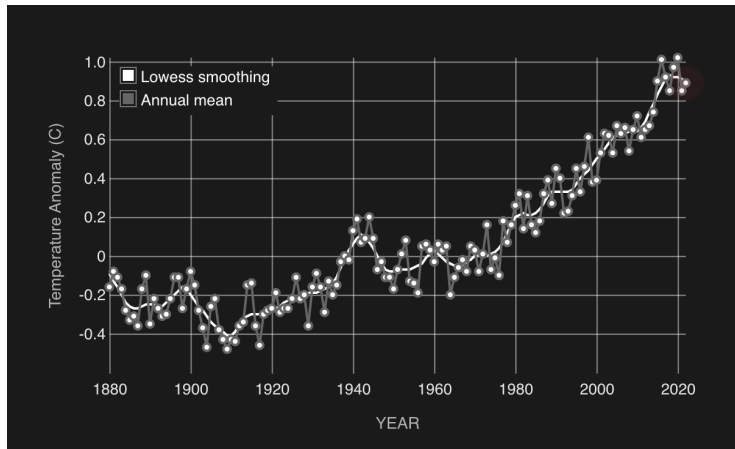
1. I respectfully request that the United States seek to implement, or to emphasize a new calendar that I am proposing.
2. The Planet Earth has many man made calendars, such as the: Gregorian, Chinese, Persian, and other calendars that reflect a point of time of initiation that is man made.
3. My proposal seeks a new calendar based on the actual age of Planet Earth. Planet Earth is approximately 4.5 billion years old.
4. This calendar would reflect Planet Earth's age, plus the man made calendar age. For example, the calendar date would be 4.5billion2023. The Planet Earth calendar can be shortened to 4.5b2023, with the b representing a billion. This calendar could also change every additional year, for example 4.5b2024.
5. This new calendar puts into a clear perspective how old the Planet Earth is in comparison to the man made calendars. This differentiation of numbers clearly shows how immense the difference is based on years.

6. This is important to me because I see that climate change is a real human made threat to mankind's way of life, and possible existence.

7. Earth has existed for 4.5 billions of years, but in less than a century, humanity has put our world in severe danger. As reported by the United States Environmental Protection Agency (EPA), “Global carbon emissions from fossil fuels have significantly increased since 1900. Since 1970, CO2 emissions have increased by about 90%, with emissions from fossil fuel combustion and industrial processes contributing about 78% of the total greenhouse gas emissions increase from 1970 to 2011.”

8. The provided statement properly demonstrates the worrying rise in global carbon emissions and their negative environmental effects. It emphasizes the importance of combating climate change through collaborative efforts, shifting to sustainable energy sources, and enacting effective regulations. The call to action emphasizes the importance of global collaboration and environmental stewardship in ensuring a sustainable future for future generations.

9. The following chart produced by the National Aeronautics and Space Administration (NASA), clearly shows temperature increases since 1880 when NASA started keeping records to present times. 2020 was tied with 2016 to be the hottest year yet. A great factor to this increase has been methane gasses, usage of fossil fuels in industrialization, and human activity per say. This has caused the rate of change in Greenland and Antarctic ice sheets to decrease by 418 billion metric tons per year and sea levels to rise 72 millimeters since 2002.



10. We need to put into perspective to society how our Planet Earth has lived for 4.5 Billion years and it's to be taken care of if we want to keep living on it.

In Totality, please review this matter. Planet Earth has been our center of humankind's existence. It is important now that we acknowledge Planet Earth's age, as it is speaking to us to make changes.

Respectfully submitted,

Victoria C. Rojas Raygoza

Full Name (First and Last): Stephanie Herron

Name of Organization or Community: Environmental Justice Health Alliance for Chemical Policy Reform

City and State: National Network of groups in various states

Telephone Number: 802-251-0203 ext.707

E-mail Address: sherron@comingcleaninc.org

Type of Comment: Written Comment Only

Subject of Comment is Relevant to:: Other

Brief description about your recommendation relevant to your selection above:

My name is Stephanie Herron. I am the National Organizer for the Environmental Justice Health Alliance for Chemical Policy Reform. EJHA is a national network of environmental & economic justice organizations in communities that are disproportionately harmed by toxic chemicals and legacy pollution. Together with our EJHA affiliates and our partners we are working to achieve a pollution-free economy that leaves no community or worker behind.

EJHA is thankful for this Administration's commitments to take a whole of government approach to advance Environmental Justice. Our leaders are deeply committed to carrying out these commitments as evidenced by the service of several of our members on the WHEJAC and our attendance at the ceremonial signing of Executive Order 14096 (Revitalizing Our Nation's Commitment to Environmental Justice for All).

In that Executive Order, President Biden said "To fulfill our Nation's promises of justice, liberty, and equality, every person must have clean air to breathe; clean water to drink; safe and healthy foods to eat; and an environment that is healthy, sustainable, climate-resilient, and free from harmful pollution and chemical exposure." Unfortunately we are still far from fulfilling that promise.

Some recent actions EPA has proposed to reduce exposure to the extremely hazardous chemical ethylene oxide are a step in the right direction, but in trying to understand and comment on these actions, we realized that air toxics regulation is confusing, siloed and inadequate. EPA takes a siloed and noncomprehensive approach by looking at HAPs one "source category" at a time, even though many communities—especially EJ communities have multiple facilities that are covered fully or partially by multiple source categories.

It's extremely difficult and time-consuming to even figure out which categories cover the facilities in your community. This siloed approach fails to account for the reality that we are not exposed to pollutants in a vacuum. We are exposed to multiple chemicals, from multiple facilities at once, and those cumulative and synergistic impacts can be further exacerbated by demographic factors like poverty and systemic racism. The EJ EO calls on agencies to analyze cumulative impacts, but EPA's recent proposed rules on the Synthetic Organic Chemical Manufacturing Industry and Ethylene Oxide Sterilizers fail to account for cumulative impacts.

In May 2019 NEJAC sent EPA a "recommendation to regulate Ethylene Oxide to protect public health". I'm here today to ask the NEJAC to renew that call by writing a letter to Administrator Regan and the EPA Office of Air calling on them to issue strong protections to eliminate the danger to workers and communities inside sterilizers, chemical plants, and other sources of hazardous air pollution like ethylene oxide on the fastest timeline possible.

While the recent EPA proposed rules make some really important improvements to reduce cancer risk from several facilities, many communities are still left exposed to extreme health harms. There are

major gaps in the way EPA regulates air toxics. EJ communities that are disproportionately exposed to and harmed by these emissions need better protection. We ask the NEJAC to join us in calling on EPA to do right by communities in Puerto Rico and around the country who are being harmed by Ethylene Oxide and other toxic air pollution. We would be glad to work with NEJAC to draft recommendations for how to do this.

Thank you for the opportunity to comment and thank you all so much for your service to the NEJAC on behalf of EJ communities.

Stephanie Herron