UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 2 9 2021

THE ADMINISTRATOR

Ms. Sylvia Marie Orduño
Chair
National Environmental Justice Advisory Council
Michigan Welfare Rights Organization
23 East Adams Street, 4th Floor
Detroit, Michigan 48226

Dear Ms. Orduño:

I would like to offer my gratitude to you for your July 12, 2021, letter[1] marking my first 100 days as the Administrator of the U.S. Environmental Protection Agency.

The National Environmental Justice Advisory Council's role is critical to centering the EPA's mission on environmental justice. Advancing environmental justice is one of my top priorities, and we will rely on the council's advice and recommendations to make significant, lasting change. The enclosure to this letter provides a detailed response to each of the recommendations and issues raised by the NEJAC's letter and expands upon the presentations of EPA senior leadership at the August 18-19, 2021, NEJAC public meeting. The attachment also includes some additional information that I felt the council would find both useful and meaningful. I wanted to communicate the work that each of the EPA National Program Offices has initiated or completed in support of environmental justice since January 20, 2021.

In response to the NEJAC requests for "communication and collaboration improvements between the NEJAC and EPA leadership," I affirm that improved communication and coordination with the council and all stakeholders is critical to the success of our efforts. The EPA senior leadership is committed to achieving meaningful and regular engagement with NEJAC members to inform our work. The EPA appreciates that the NEJAC is a group of dedicated voluntary representative members who commit their time to the importance of this forum. In return, I commit to you that the EPA's senior leadership will consistently attend and, upon request, participate in NEJAC's public meetings.

As you know, President Joe Biden has pledged to prioritize environmental justice and put the whole of government behind advancing a systematic approach to racial justice, civil rights and equity. Advice and recommendations from the council are a critical part of the EPA's efforts to

[1] National Environmental Justice Advisory Council, *Letter to EPA Administrator Michael Regan, Re: The National Environmental Justice Advisory Council's Recommendations and Calls to Action* (July 12, 2021); available online at https://bit.ly/2Zjepj8.

respond to the President's mandate and to ensure that environmental justice becomes part of the EPA's DNA. Our partnership, coordination and communication with the NEJAC will serve as an important measure of transparency and accountability for my broader commitment to center our mission on achieving environmental justice.

I also understand that the council has created several workgroups to focus on urgent issues. These workgroups will provide an excellent opportunity for regular engagement between NEJAC members, program leadership and their staffs in the coming months. I look forward to any recommendations and advice that these workgroups present for consideration to the full NEJAC body. I also commit to you that your written advice and recommendations will receive prompt acknowledgement followed by engagement and substantive written responses by relevant EPA leadership and programs.

Regarding the NEJAC's request for a "communication and collaboration request between the NEJAC and the White House Environmental Justice Advisory Council," both the EPA and the Council on Environmental Quality support enhanced coordination between the two bodies. The EPA's Office of Environmental Justice is responsible for supporting both councils and has coordinated with CEQ to bring the two bodies together. I look forward to facilitating a close working relationship between NEJAC and WHEJAC that will grow over time.

This is an unprecedented time of opportunity to fundamentally advance equity, justice and civil rights across the United States. The leadership provided by President Biden alongside both the momentum generated and the mandate delivered through the efforts of individuals and communities across the United States – many of whom are represented on the NEJAC – has brought our country to this point in history. I look forward to continuing to engage with the NEJAC as we collectively advance our environmental justice efforts.

Sincerely yours,

Michael S. Regan

Enclosure

Enclosure: Responses to the NEJAC's 100-day Letter to Administrator Regan

The EPA's National Program Offices have provided topic-by-topic responses to the individual advice and recommendations listed in the NEJAC's 100-day letter to Administrator Michael Regan.[1] Each section starts with a short summary of the NEJAC's recommendations followed by substantive responses from relevant programs. Where relevant, the program offices included additional information to describe the full scope of the EPA's equity, justice and civil rights activities under Administrator Regan's leadership.

Elevating Environmental Justice at EPA

American Rescue Plan Funding

In March 2021, Congress appropriated $100 million to the EPA through the American Rescue Plan Act. Administrator Regan directed the EPA to develop a plan to use those funds according to several principles. First, the EPA should prioritize resources and assistance to meet the needs of overburdened and vulnerable communities hit hardest by the COVID-19 pandemic. Second, the EPA should use existing grant and contract vehicles wherever possible to speed the delivery of assistance to where it is needed the most. Third, the EPA should rely on our long experience, feedback from communities, and the advice and recommendations of the NEJAC to determine which programs have the greatest impact on the ground for communities.

The EPA is proud of the work accomplished to develop a plan that is already putting those resources to good work in a variety of ways. This includes providing more funding through the EJ grant programs this year than the EPA has provided in the previous decade. The EPA will use a significant portion of the funding for community air monitoring, both to assess compliance with emissions standards and to replace filter-based particulate matter monitors with continuous monitors that will provide much more useful data relevant to public health. This will be especially critical to protect the health of vulnerable populations from exposure to smoke from wildfires. The EPA will also provide funding directly to state, local, and tribal governments and community-based organizations for their own air quality monitoring priority projects. ARPA funding has provided a huge boost to multiple technical assistance programs across the agency that will support everything from circuit riders for drinking water system compliance to community efforts to build resilience to climate change. The EPA will use a significant portion of ARPA funds to pilot an electric school bus program through our Diesel Emission Reduction Act rebate program. The EPA will also provide grant funds directly to tribal governments to enhance their ability to engage and support their communities.

Executive Orders and the EPA's Strategic Plan

[1] NEJAC (2021, July 12). *Letter to EPA Administrator Michael Regan, Re: The National Environmental Justice Advisory Council's Recommendations and Calls to Action* (July 12, 2021); available online at https://bit.ly/2XI7UWN.

Thanks to the leadership of President Biden, this has truly been an unprecedented and exciting time for EJ activity across the federal government. Executive Orders 13985 on racial equity[2] and 14008 on tackling the climate crisis[3] mandate a whole of government approach to advancing equity and justice across everything the agency does. The EPA has aggressively pursued the implementation of these executive orders through its own programs and is also providing regular support to White House offices leading implementation across the federal government. The EPA looks forward to engaging the NEJAC over the coming months and years on continued efforts to implement these executive orders and programs such as Justice40.

The EPA's work to stay on the leading edge of implementing these executive orders aligns with the agency's work to make significant, lasting change on environmental justice. For the first time, the EPA is including EJ and civil rights compliance as a distinct and core goal of the next EPA multiyear strategic plan. No longer will the agency's work to advance justice and live up to its civil rights responsibilities be left outside of the EPA's bedrock planning documents. The EPA's draft strategic plan is out for public comment, and the agency looks forward to reviewing NEJAC's comments and engaging with the council as the EPA moves forward to implement the plan. Decades of NEJAC's advice and recommendations have informed the EPA's approach to prioritizing EJ and civil rights in its new strategic plan.

President Biden's FY22 budget request includes historic funding for environmental justice. This budget proposal also announces the EPA's plan to launch a full-fledged National Program Office devoted to environmental justice and civil rights alongside others such as the Office of Water and the Office of Enforcement and Compliance Assurance. While the budget is not yet enacted, the EPA plans to be ready to organize a new national program that will house both the EJ program and the external civil rights compliance program. Once again, the EPA has heard and agrees with what the NEJAC has long advised – the relationship between EJ and civil rights is deep, mutually supportive, and should operate in close alignment to reinforce the efforts of the two programs. This new national program office will finally unlock this potential and provide an example across the United States for how to craft strong, effective, and responsive EJ and civil rights programs that are focused on achieving justice and ensuring the rights of communities that have for generations suffered disproportionately.

Issues Related to Civil Rights Compliance and Enforcement

The NEJAC has emphasized to the EPA that communities suffering from racial discrimination have a right to have the EPA review and resolve their complaints in a substantive and timely manner with input from the complainants. To that end, the NEJAC believes the EPA must substantively invest in responding to recommendations to address Title VI compliance concerns, including case backlogs, deadlines, and complainant involvement in settlements discussions.[4]

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[2] Federal Register (2021, January 25). *Executive Office of the President Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*; available online at https://bit.ly/3b8dwfX

[3] Federal Register (2021, February 1). *Executive Office of the President Executive Order 14008: Tackling the Climate Crisis at Home and Abroad*; available online at https://bit.ly/2ZjMCyW

[4] The NEJAC: (2017, July 31). *Re: Letter to Administrator Scott Pruitt re: Title VI of the Civil Rights Act of 1964*; available online at https://www.epa.gov/sites/default/files/2018-01/documents/nejac-title-vi-letter-8-1-17-final.pdf

The EPA strongly supports increased and meaningful outreach to overburdened, underserved, and disadvantaged communities, people with disabilities, and lasting and credible engagement with stakeholders, including the NEJAC, and recipients to help inform our policies, practices, and procedures. The External Civil Rights Compliance Office is partnering with OEJ to integrate EJ principles in civil rights enforcement. The EPA's draft FY22-26 Strategic Plan elevates civil rights compliance as a key objective. The EPA looks forward to receiving the NEJAC's comments on the draft plan and discussing it at the November 10 public meeting. The EPA is also interested in engaging with the NEJAC to explore the feasibility of establishing a Title VI NEJAC workgroup.

Discrimination is a barrier to achieving environmental justice and equity, and the EPA enforcement of federal civil rights laws is a vital tool in the agency's efforts to advance equity and environmental justice. Accordingly, Administrator Regan has directed ECRCO to strengthen civil rights enforcement and prioritize the integration of civil rights enforcement accountability throughout all EPA programs and activities to impact positive and sustainable change for the most overburdened, underserved, and disadvantaged communities and people with disabilities. For the EPA to strengthen civil rights enforcement, the agency recognizes that it must move the external civil rights program from being largely reactive – only responding to complaints – to proactive, making expectations clear through guidance and using affirmative authority to initiate compliance reviews. The EPA must change both the expectations of recipients of federal funds and its role as an agency – not just ECRCO, but the whole agency – to ensure compliance with civil rights laws, particularly Title VI of the Civil Rights Act of 1964.

As noted above, the EPA plans to launch a new National Program Office devoted to environmental justice and civil rights. ECRCO and OEJ would be at the center of this new national program, thereby fostering more coordination between staff working on external civil rights compliance and environmental justice at EPA headquarters and in the regions.

Other key actions include:

- Developing and issuing guidance to provide greater clarity to recipients and stakeholders regarding legal requirements, including standards for assessing adverse disparate impacts (considering cumulative impacts) that are applicable to programmatic decisions.
- Using the EPA's affirmative authority to conduct post-award compliance reviews impacting the most overburdened, underserved and disadvantaged communities and people with disabilities.
- Verifying civil rights compliance before funds are awarded to applicants for EPA financial assistance.
- Issuing guidance for recipients emphasizing the need for EPA recipients to come into compliance with foundational nondiscrimination program requirements, including clarifying obligations for recipients to collect, and maintain important data about the communities they serve, and further for recipients to use that data to ensure that their programmatic decisions (such as permitting) do not result in discriminatory outcomes for overburdened, underserved and disadvantaged communities and people with disabilities.

- Continuing to provide training to EPA staff on civil rights issues on a regular basis, and
- Engaging meaningfully with external stakeholders, especially overburdened, underserved and disadvantaged communities and people with disabilities.

The longstanding backlog of cases in the EPA's external civil rights program has been addressed. While the EPA has faced past challenges in addressing a sizeable backlog of cases, over the past several years the EPA focused its energy and resources on managing its Title VI complaint docket, including addressing in full its docket of older cases and markedly improving its case processing times for new cases. The EPA has put in place internal accountability measures to ensure timely investigations and resolution of complaints.

The EPA is committed to promoting appropriate involvement by both complainants and recipients in the complaint investigation and informal resolution processes. Going forward and consistent with EJ principles, the EPA is prioritizing enhanced communication and engagement with complainants during the complaint investigation and informal resolution processes, as well as generally with agency stakeholders, including those in environmentally overburdened and disadvantaged communities and people with disabilities. To offer one example, the EPA is exploring options for enhancing Alternative Dispute Resolution services with the capacity to offer services to a greater number of recipients and communities to resolve discrimination complaints, including expanding resources to offer additional approaches to ADR.

The EPA's goal is to undertake thorough and effective complaint investigations and resolutions while adhering to the required regulatory timeframes. In investigations, the EPA routinely seeks additional information from complainants and recipients, should they wish to provide it, to obtain information and evidence relevant to the issues accepted for investigation; fill in information gaps; identify sources of documentary and other evidence; and determine appropriate matters for an informal resolution agreement.

On September 20, 2021, the EPA sent a fulsome response to the EPA Office of Inspector General, which had raised concerns about the EPA's implementation of Title VI in a 2020 report. In that response, the EPA committed to several specific actions to strengthen this program at the EPA. The EPA's response is available in full on the EPA website.[5]

Issues Related to Enforcement and Compliance

Consistent with the mandate in Executive Order 14008, Administrator Regan has directed the Office of Enforcement and Compliance Assurance to "strengthen enforcement of environmental violations with disproportionate impact on underserved communities." In response, OECA has issued four directives:

[5] U.S. EPA (2021, September 20). "OGC Revised Responses to OIG Recommendations," Project No. OA&E-FY19-0357; available online at https://bit.ly/3maMMle.

- *Strengthening Enforcement in Communities with Environmental Justice Concerns* (April 30, 2021).[6] Regarding civil regulatory enforcement, this memo directs an increase in the number of facility inspections in overburdened communities, enhancements to remedies, and an increase in community engagement.
- *Strengthening Environmental Justice through Criminal Enforcement* (June 21, 2021).[7] This memo directs strengthened detection of environmental crimes in overburdened communities through effective civil-criminal coordination on investigations and cases, improved assistance to crime victims, and enhanced remedies sought in environmental crime cases.
- *Strengthening Environmental Justice through Cleanup Enforcement Actions* (July 1, 2021).[8] This memo directs the EPA's cleanup enforcement staff to require responsible parties to take early and prompt cleanup actions, press for more robust enforcement instruments, and increase cleanup oversight.
- *Using All Appropriate Injunctive Relief Tools in Civil Enforcement Settlements* (April 26, 2021).[9] This memo encourages use of the full array of policy and legal tools to ensure benefits to affected individuals and communities, including advanced monitoring, audits, electronic reporting and posting of compliance data.

In accordance with Administrator Regan's direction to strengthen enforcement in vulnerable communities, OECA is already intervening to stop pollution in communities and achieving notable results:

- In May, EPA issued a Clean Air Act Section 303 Emergency Order to reduce dangerous emissions of hydrogen sulfide from the New Indy Containerboard pulp and paper mill, located approximately five miles from the Catawba Indian Nation in South Carolina. The Order requires New Indy to immediately take steps to install fenceline monitors, establish limits, and report monitoring results. The surrounding community had made thousands of odor complaints.
- In June, the EPA issued a Clean Air Act Section 303 Emergency Order to Limetree Bay to pause all operations at its St. Croix, U.S. Virgin Islands refinery following multiple air emissions incidents that created an imminent and substantial endangerment to public health or the environment. The EPA has set up a community hotline, worked closely with the nearby community, and monitored the air near the Limetree Bay refinery for harmful pollutants.
- In July, the EPA issued a Safe Drinking Water Act Section 1431 Emergency Order to Cahokia Heights in the East St. Louis Metro area, to address potential drinking water issues related to chronic raw sewage overflow issues in residential areas.

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[6] U.S. EPA (2021, April 30). *Memorandum from Lawrence Starfield, Acting Assistant Administrator of OECA, Re: Strengthening Enforcement in Communities with Environmental Justice Concerns*; available online at https://bit.ly/310ndLK

[7] U.S. EPA (2021, June 21). *Memorandum from Lawrence Starfield, Acting Assistant Administrator of OECA, Re: Strengthening Environmental Justice through Criminal Enforcement;* available online at https://bit.ly/3mciFKd

[8] U.S. EPA (2021, July 1). *Memorandum from Lawrence Starfield, Acting Assistant Administrator of OECA, Re: Strengthening Environmental l Justice Through Cleanup Enforcement Actions*; available online at https://www.epa.gov/system/files/documents/2021-07/strengtheningenvirjustice-cleanupenfaction070121.pdf

[9] U.S. EPA (2021, April 26). *Re: Using All Injunctive Relief Tools in Civil Enforcement Settlements*; available online at https://bit.ly/3pBgJNI

- In July, the EPA issued a Safe Drinking Water Act Section 1431 Emergency Order to the Clarksburg Water Board in Clarksburg, West Virginia, in response to elevated lead levels found in tap water.

As th eEPA expressed during the meeting on August 18, the leadership and staff in OECA would welcome the opportunity to meet with the NEJAC in the near future to have a more in-depth dialogue about our activities to strengthen enforcement in overburdened communities, and to hear ideas for improving community engagement in enforcement.

Issues Related to Drinking Water and Water Infrastructure

Over the past several years, the NEJAC has consistently expressed the need for accountability and action in the EPA's work with state, local, and other federal entities to remediate water infrastructure and human health concerns that continue to impact communities. NEJAC's recommendations have focused on a wide range of concerns, such as the 2017 letter to the EPA Administrator Scott Pruitt with updated recommendations concerning the crisis in Flint, Michigan, and the 2019 letter to Administrator Andrew Wheeler outlining urgent water infrastructure needs. Recommendations include prioritizing water safety in communities with EJ concerns, ensuring water infrastructure funding and affordability, and building capacity and resilience of communities as water resources are impacted by climate change. The NEJAC also has highlighted the need to reestablish the public's trust and confidence in the EPA's regulations and its responsiveness to communities, especially those disproportionately impacted by water issues.[10]

Everyone in this country, regardless of their zip code, the color of their skin, or financial means should have clean, safe, affordable and reliable drinking water and wastewater services. The EPA is working to address some of our country's most pressing water needs, specifically in response to the crisis in Flint, Michigan, and more broadly in addressing water infrastructure needs across the country. This is a critical undertaking as America's water resources are increasingly stressed by the effects of climate change and as the impacts of neglected water infrastructure are felt in communities nationwide. The EPA is committed to working with and supporting communities in ensuring that there is equitable access to clean drinking water and sanitation, including effective wastewater treatment.

Ongoing Engagement: Responding to the Flint Water Crisis

In Flint, the water crisis jeopardized the community's access to this essential resource. The crisis has had and continues to have broad impacts on residents, children and the community. Its effects are deep and long-lasting. Administrator Regan and Assistant Administrator for Water Radhika Fox visited the city in July 2021 to hear first-hand about recent developments and how the EPA can continue to support the community's recovery. During the visit, they heard from community members about ongoing challenges related to trust, and to access information about

[10] The NEJAC (2017, July 31). *Letter to Administrator Scott Pruitt re: Flint, Michigan Drinking Water Contamination*; available online at https://www.epa.gov/sites/default/files/2018-01/documents/nejac-flint-water-letter-8-1-17-final.pdf and the NEJAC (2019, March 1). *Report to Administrator Andrew Wheeler re: EPA's Role in Addressing the Urgent Water Infrastructure Needs of Environmental Justice Communities*; available online at https://bit.ly/2Zu097J

Flint's water and infrastructure. They also saw that community members continue to lead and identify paths forward. Administrator Regan was pleased to be able to visit the Flint Community Water Lab, where residents can have their water tested for free. Initiatives like the Water Lab show the resourcefulness and vision of Flint's residents. To help the community continue to recover, the EPA knows the people of Flint require further support.

The agency is committed to fighting for the resources that Flint needs to recover and build back better. The EPA is taking several steps to provide support and address the issues.

EPA Region 5 is actively engaging with community leaders in Flint to address environmental justice and civil rights concerns. In response to an August 5, 2021, memo from environmental justice leaders that includes priorities for Flint, the agency outlined our commitments and actions underway. Region 5 and OEJ also are engaging directly with EJ leaders this autumn to continue this important dialogue and build on the commitments in the memo. The engagement will include further discussion of the EJ leaders' priorities as well as planning for concrete action to advance environmental justice priorities for Flint, Detroit, and Benton Harbor.

The EPA continues to meet monthly with the State of Michigan Department of Environment Great Lakes and Energy and the City of Flint to follow and monitor work to improve Flint's water system, its water quality and to enhance communications between government agencies to ensure issues are addressed in a timely manner. The EPA is also working with EGLE and the city to improve their communications with the community about water issues. The EPA has a full-time staff person in Flint supporting efforts by the city and EGLE to communicate effectively and proactively with Flint residents. The EPA is working to make this staff person more visible and better equipped to respond to water-related inquiries from Flint residents.

To help address the major issue of water affordability, the EPA is committed to evaluating how its existing water infrastructure financing programs – including the Clean Water and Safe Drinking Water State Revolving Funds, Water Infrastructure Improvements for the Nation Act grants and Water Infrastructure Finance and Innovation Act loans – can support Flint and other disadvantaged communities and people with disabilities. If signed into law, the bipartisan Infrastructure Investment and Jobs Act would make a transformational $50 billion investment in our nation's water infrastructure.

Water Infrastructure and Public Health Priorities: Lead and PFAS

Access to safe, affordable water is critical to ensuring the health and resilience of all communities across America. The EPA would like to highlight two pressing public health issues that the agency is actively addressing now, in part through its infrastructure programs: lead exposure and PFAS exposure. Lead exposure, including through drinking water, is a public health issue of paramount importance. Lead's adverse effects on children and public health are serious and well known. The EPA estimates that 6-10 million homes in the U.S. have drinking water service lines that contain lead. Listening to and learning from communities that are most impacted by lead in drinking water is essential to ensuring that the EPA's actions protect all communities – especially communities of color and low-income communities.

The EPA recently concluded its public engagement around revisions to the Lead and Copper Rule. The agency obtained input from the public, stakeholder groups, tribal representatives, state co-regulators, local officials and communities to ensure that the revised rule protects communities from lead contamination in drinking water. During those engagements, the EPA heard clearly that federal resources are essential to help communities address lead service lines. The EPA continues to launch important new grant programs under the WIIN Act that target support to underserved, small and disadvantaged communities and people with disabilities. These grants improve access to safe drinking water and support programs that test for and reduce lead in drinking water. Congress is also considering substantial new funding.

The EPA also is prioritizing PFAS as a pressing water infrastructure challenge. We provide more detail on our PFAS work later in this attachment.

Additional Priorities: Funding and Capacity Development

To address these critical health issues and other barriers to clean, safe, accessible water in communities, the EPA has been talking with water utility directors, public officials and community leaders across the country about the challenges of maintaining water infrastructure with limited resources. These discussions underscored that local leaders need a stronger federal partner committed to bringing resources and technical assistance to help upgrade communities' water infrastructure.

The EPA is committed to providing that stronger partnership to local leaders. Examples of actions the EPA is taking to address infrastructure issues include the following.

In support of EO 14008 on Tackling the Climate Crisis, the EPA is implementing three key water infrastructure programs as pilots for early action under President Biden's Justice40 Initiative. These programs represent more than 30 percent of the agency's budget: The Clean Water SRF, the Drinking Water SRF, and the Reducing Lead in Drinking Water grant program under the WIIN Act. These commitments will contribute to meeting the President's goal of delivering 40 percent of the overall benefits from federal investments to disadvantaged communities and people with disabilities.

The EPA has invited and is considering public comments on its proposed 2020 Financial Capability Assessment for the Clean Water Act, which will help communities better plan water infrastructure improvements. As the FCA is finalized, the EPA will strengthen both Clean Water Act protections and water service affordability protections. The EPA is committed to supporting water utilities that serve economically disadvantaged communities and people with disabilities. The agency will work with them to help ensure their customers can afford water service and benefit from vital clean water protections that support public health, the environment and local economies.

The EPA is also committed to helping improve water infrastructure serving tribal communities. On October 14, 2021, the EPA released an action plan to strengthen the agency's partnership

with Tribes and Alaska Native Villages on water issues.[11] The action plan focuses on promoting robust coordination and meaningful consultation with Tribal nations; strengthening and expanding water governance in Indian country; increasing infrastructure funding and capacity development; and honoring the federal trust responsibility and protecting Tribal reserved rights related to water resources. In addition, the EPA is renewing its commitment to the Tribal Infrastructure Interagency Task Force by re-establishing the Memorandum of Understanding among the federal partners, thereby strengthening the federal government's commitment to deliver sustainable drinking water, wastewater and solid waste infrastructure to tribal communities.

Interagency Coordination on Water-Related Climate Impacts

The impacts of climate change are affecting people in every region of the country, threatening lives and livelihoods and damaging infrastructure, ecosystems and social systems. Certain communities and populations are particularly vulnerable to these impacts, including low-income communities and communities of color, children, the elderly, tribes and indigenous people. The EPA is proactively incorporating climate adaptation planning and risk reduction throughout our programs, including new investments in water infrastructure, with a particular focus on advancing environmental justice. The agency is working closely with its federal partners through several interagency platforms, including the White House Coastal Resilience Interagency Work Group, Flood Resilience IWG, Drought IWG, the Water Subcabinet and the America the Beautiful Initiative, to develop and coordinate strategies to address these climate impacts. The EPA is actively consulting and engaging with states, tribes, local governments, environmental justice organizations and many others across the country to ensure that its plans to embed climate and environmental justice considerations across its work reflect the diverse needs of all stakeholders.

Water scarcity, exacerbated by climate change and other factors, is a crisis in tribal nations and in states in the great plains and across the west. Water allocations are at historic lows in many areas, creating an urgent need to minimize the impacts of the drought and develop long-term plans to facilitate both conservation and sustainable economic growth. If enacted, the bipartisan Infrastructure Investment and Jobs Act will provide more than $7 billion to strengthen and build more resilient water infrastructure in the western U.S. It will support a range of programs, including efforts to promote water reuse, recycling, storage, desalination, as well as infrastructure rehabilitation and replacement. In addition, the Administration's new Interagency Working Group on drought is identifying immediate, short-term financial and technical assistance opportunities. The Working Group is partnering with state, local and tribal governments to address the needs of communities suffering from drought-related impacts. The Administration has also committed to strengthening the National Drought Resilience Partnership. Formed in 2013, the NDRP brings together multiple federal agencies to build long-term drought resilience, including developing innovative science-driven actions to address water supply challenges.

Issues Related to PFAS Contamination

[11] U.S. EPA (2021, October 14). *Strengthening the Nation-to-Nation Relationship With Tribes to Secure a Sustainable Water Future*; available online at https://bit.ly/3C8eG77.

Addressing Per- and polyfluoroalkyl substances chemicals is an important component of Administrator Regan's work to center EJ in the EPA's mission. One of his earliest actions was to establish the EPA Council on PFAS, an internal body comprised of senior agency leaders who are charged with developing a whole-of-EPA plan to accelerate progress on PFAS.[12]

The agency recognizes that for many communities, action to address PFAS has been slower than many would like to see. The EPA hears and understands these concerns and is working now to remedy this serious issue. On October 18, 2021, Administrator Regan released a PFAS Strategic Roadmap for 2021-2024 that sets timelines by which the EPA plans to take specific actions and commits to bolder new policies to safeguard public health, protect the environment and hold polluters accountable.[13]

The NEJAC's first request in its August 2019 letter to Administrator Wheeler on PFAS was for EPA staff to meet with frontline communities in each EPA region to understand the PFAS health impacts and concerns beyond regulatory issues. In the new PFAS Strategic Roadmap, the EPA commits to "engage directly with affected communities in every EPA region to hear how PFAS contamination impacts their lives and livelihoods." The EPA also looks forward to working with members of the NEJAC, particularly members of the PFAS Subcommittee, as the agency works to implement the roadmap.
The Strategic Roadmap made several commitments, several of which are already underway. For example:

- Under the Safe Drinking Water Act, the EPA has the authority to set enforceable National Primary Drinking Water Regulations for drinking water contaminants and can require monitoring of public water supplies. To date, the EPA has regulated more than 90 drinking water contaminants but has not established national drinking water regulations for PFAS chemicals. In March 2021, the EPA published the Fourth Regulatory Determinations, including a final determination to regulate PFOA and PFOS in drinking water. The EPA is now developing a proposed NPDWR for these chemicals. As the EPA undertakes this action, the agency is also evaluating additional PFAS and considering regulatory actions to address groups of PFAS.
- Effluent Limitations Guidelines are a powerful tool to limit pollutants from entering the nation's waters. ELGs establish national technology-based regulatory limits on the level of specified pollutants in wastewater discharged into surface waters and into municipal sewage treatment facilities. The EPA has been conducting a PFAS multi-industry study to inform the extent and nature of PFAS discharges. Based on this study, the EPA is taking a proactive approach to restrict PFAS discharges from multiple industrial categories. Our multi-faceted approach entails:
    - Undertaking rulemakings to restrict PFAS discharges where we have the data to do so – including PFAS manufacturers, metal finishing, and electroplating.

[12] The NEJAC: (2019, August 14). *Letter to Administrator Andrew Wheeler re: Recommendations to Strengthen the PFAS Action*; available online at https://bit.ly/3vExZTa
[13] The PFAS Strategic Roadmap and related materials are available online at https://bit.ly/3jzExgU.

- Launch detailed studies on facilities where we have preliminary data on PFAS discharges, but the data is currently insufficient to support a potential rulemaking. These include electrical and electronic components, textiles and landfills.
- Initiate data reviews for industrial categories for which there is little known information on PFAs discharges, including leather tanning, plastics molding and forming and paint formulators.
- Monitor industrial categories where the phaseout of PFAS is projected by 2024, including pulp and paper manufacturers and airports.

- The EPA is developing a Notice of Proposed Rulemaking to designate PFOA and PFOS as CERCLA hazardous substances. Such designations will require facilities across the country to report on PFOA and PFOS releases that meet or exceed the reportable quantity assigned to these substances. The hazardous substance designations will also enhance the ability of federal, state, tribal and local authorities to obtain information regarding the location and extent of releases. The EPA or other agencies could also seek cost recovery or contributions for costs incurred for the cleanup.
- In March 2021, Administrator Regan directed that the EPA pull down and call for a review under the agency's Scientific Integrity Policy of the PFBS (Perfluorobutanesulfonic acid, a PFAS compound) Toxicity Assessment, released in the last days of the previous administration. The EPA then issued an updated toxicity assessment for PFBS that reflects the best available science, involved extensive federal, state, and public engagement, and is critical to the EPA efforts to help communities impacted by PFAS.

In the pages that follow, we provide more detail on specific PFAS issues of interest to the NEJAC.

PFAS and the Toxic Substances Control Act (TSCA)

TSCA Section 5 requires the EPA to review new chemicals – including new PFAS – before those chemicals can enter U.S. commerce. Where risks to human health or the environment are identified, including risks to potentially exposed or susceptible subpopulations, or there is insufficient information on a new chemical, TSCA requires the EPA to act to appropriately manage those risks. The EPA is keenly aware of the concerns associated with PFAS and is committed to ultimately preventing or reducing any risks identified through this statutory process.

TSCA: National PFAS Testing Strategy

The EPA needs to evaluate a large number of PFAS for potential human and ecological effects. Most of the hundreds of PFAS currently in commerce have limited or no toxicity data, and if the EPA attempts to research them one at a time, it will be impossible for the EPA to expeditiously understand, let alone address, the risks these substances may pose to human health and the environment. To address this data gap and fundamentally advance our understanding of these

substances, the EPA released a National PFAS Testing Strategy to deepen understanding of the impacts of PFAS, including potential hazards to human health and the environment.[14] This strategy will help the EPA identify and select PFAS for which the agency will require testing using TSCA authorities. The EPA released this strategy on October 18, 2021, as part of the PFAS Strategic Roadmap.

TSCA: New Strategy for Reviewing and Managing Low Volume Exemptions

In April 2021, Administrator Regan directed that the EPA implement a new strategy for reviewing and managing low volume exemptions requests for PFAS to protect all Americans and the environment from the potentially harmful effects of these chemicals.

Historically, some new PFAS have been allowed to enter the market through LVEs. Due to the scientific complexities associated with assessing PFAS, and the hazard potential associated with various sub-classes of PFAS, it is challenging to conduct an appropriately robust review of LVE requests for PFAS in the 30 days the TSCA regulations allow. TSCA regulations provide for the denial of LVE requests when the EPA finds the chemical in question may cause serious human health effects or significant environmental effects, or when issues concerning toxicity or exposure require review that cannot be completed in 30 days.

While the EPA will consider each LVE application individually, the EPA generally expects that pending and new LVE submissions for PFAS would be denied. Doing this will allow the agency additional time to conduct a more thorough review through the pre-manufacture notice review process and, as appropriate, put measures in place to mitigate the potential risk of these chemicals as the agency determines whether to allow them to enter commerce.

TSCA: Low Volume Exemption Stewardship Program

In July 2021, the EPA announced a stewardship program to encourage the voluntary withdrawal of previously granted low volume exemptions for PFAS. The goal of the PFAS LVE Stewardship Program is to stop the ongoing manufacture of PFAS under previously approved LVEs that have not gone through the full TSCA pre-manufacture review.

There are approximately 600 PFAS with currently granted LVEs. Through this program, the EPA intends to work with trade associations, non-governmental organizations and companies to encourage voluntary withdrawal of the LVEs. To participate in the program, companies with previously granted PFAS LVEs may choose to voluntarily withdraw their LVEs and certify that they will no longer manufacture or import that PFAS. Alternatively, companies may choose to voluntarily withdraw their LVE following submission and review of a pre-manufacture notice, which will provide for a robust safety review and the imposition of appropriate and enforceable protections for human health and the environment. The EPA will recognize program participants on its website.

TSCA: Extensive PFAS Data Collection

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[14] U.S. EPA (2021, October 18). *National PFAS Testing Strategy: Identification of Candidate Per- and Polyfluoroalkyl Substances for Testing*; available online at https://bit.ly/3Ccibtm.

In June 2021, the EPA proposed a rule that would require reporting on PFAS manufactured in the U.S. (including importers) in any year since 2011 to report information related to chemical identity, categories of use, volumes manufactured and processed, by products, environmental and health effects, worker exposure and disposal. The proposed rule will help the EPA better understand the sources and quantities of PFAS manufactured in the United States and support the agency's PFAS research, monitoring, and regulatory efforts. Once finalized, this rule would be the first targeted effort under TSCA to collect information on the manufacture of PFAS and will provide the EPA with the most comprehensive dataset of PFAS manufactured in the United States.

PFAS and the Toxics Release Inventory (TRI) Program

Section 7321 of the FY 2020 NDAA immediately added 172 PFAS to the list of toxic chemicals subject to reporting under section 313 of the Emergency Planning and Community Right-to-Know Act and section 6607 of the Pollution Prevention Act. The NDAA also set a manufacture, processing, and otherwise use reporting threshold of 100 pounds for each PFAS added to the list.

In July 2021, the EPA directed the release of preliminary data for the first-ever reporting on PFAS added to the TRI by the 2020 NDAA. The preliminary PFAS data received by the agency include a total of 91 TRI reporting forms for 43 discrete PFAS filed by 39 individual facilities. The preliminary data indicate facilities managed more than 700,000 pounds of production-related waste of PFAS during 2020. The EPA is conducting a review and data checks on the preliminary data.

In analyzing the PFAS reporting, the EPA will also include a focused and more rapid effort to provide insights regarding the seemingly limited scope of the reporting, including the types and number of facilities reporting and PFAS reported. The EPA will take the appropriate action depending upon the findings, including compliance assistance, enforcement, or proposing modifications to the TRI reporting requirements for PFAS.

The FY 2020 NDAA also provided a framework for additional PFAS to be added to TRI on an annual basis. For example, for TRI Reporting Year 2021, the NDAA automatically added three PFAS to the TRI list because they are now subject to a significant new use rule under TSCA. On June 3, 2021, the agency issued a final rule that officially incorporates those PFAS into the Code of Federal Regulations for TRI. Per the NDAA requirements, the PFAS additions became effective as of January 1, 2021. Reporting forms for these PFAS will be due to EPA by July 1, 2022, for calendar year 2021 data.

The EPA anticipates future additions of PFAS to the TRI under this framework in the NDAA, e.g., the addition of perfluorobutane sulfonic acid in January 2022 following the EPA's recent publication of an April 2021 toxicity assessment on the chemical. The EPA is also actively considering whether certain additional PFAS meet the EPCRA section 313 listing criteria pursuant to the timeline in section 7321(d) of the FY 2020 NDAA.

PFAS and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In January 2021, the EPA informed the public of testing that determined that fluorinated high-density polyethylene containers that are used to store and transport a mosquito control pesticide product contain PFAS that are leaching into the pesticide product.

Through a coordinated effort with both the Commonwealth of Massachusetts and the pesticide manufacturer, shipment of affected containers of pesticide was voluntarily stopped, and the manufacturer conducted its own testing to confirm the EPA results. In addition, the EPA issued a request for information under TSCA to the company that fluorinates the containers by certain pesticide manufacturers. The TSCA subpoena requested information about the fluorine processes used to treat the containers. As an example, the EPA is actively coordinating with the state of Maryland and registrants to obtain samples and test mosquito control products and their containers for the presence of PFAS, and the EPA will share that information directly with the state.

The EPA also released testing data in March 2021 and outlined next steps to work closely with stakeholders to collect additional information on this issue. Administrator Regan committed to coordinating with the affected entities involved and their supply and distribution chains, pesticide users, the pesticide and packaging industry, and federal, state, and tribal partners as the EPA works through this complex health and environmental issue.

While the agency is early in its investigation, the EPA will use all available regulatory and non-regulatory tools to determine the scope of this emerging issue and its potential impact on human health and the environment. It is important to note that although these types of products should not be a source of PFAS, the data indicates that the amount of PFAS that has entered the environment from the contamination in the containers the agency tested is extremely small.

In sum, these actions are a significant step forward in the EPA's work to meet this crisis head on and exemplify the EPA's commitment to address this issue and a commensurate increase in the tempo and boldness of actions we will take to protect human health and the environment from PFAS.

Issues Related to Ethylene Oxide

Concerning ethylene oxide, the NEJAC has recommended that the EPA use sound science and ensure meaningful involvement of impacted communities its regulatory program. In addition, the NEJAC has asked for more information about the EPA efforts to reduce emissions of this chemical and encouraged the EPA to take prompt regulatory action.[15]

Ethylene Oxide and the Clean Air Act

For the Clean Air Act section 112(f)(2) risk reviews, the EPA performs health risk assessments for the CAA-identified hazardous air pollutants. These reviews rely on the best available science and often include toxicity information from the EPA's Integrated Risk Information System

[15] The NEJAC (2019, May 3). *Letter to Administrator Andrew Wheeler re: Recommendation to Regulate Ethylene Oxide to Protect Public Health and to use the Findings and Conclusions of the EPA Integrated Risk Information System Chemical Assessments in Regulatory Determinations*; available online at https://bit.ly/2XHvdjo

program. For ethylene oxide, the agency issued an updated IRIS value in 2016 based on the latest science, and notably, recommendations from the agency's Science Advisory Board. Those recommendations were developed over a lengthy 10-year review period, which included two rounds of public comment and two rounds of peer review. The EPA stands by its IRIS assessment for EtO.

The EPA is making steady progress to address EtO from industrial sources of this potent chemical. The agency is working to complete a thorough review of regulations that apply to industries that emit EtO. For each of these complex rules, the agency will work to:

- develop up-to-date, accurate information about emissions from the industries.
- share information with surrounding communities.
- seek public input during the rulemaking process.

Administrator Regan is committed to reviewing and revising rules consistent with the schedule provided in the May 6, 2021, OIG report for these existing regulations, which could result in the following updated rulemakings:

Commercial Sterilizers: Quarter 4, Fiscal Year (FY) 2022
Hospital Sterilizers: Quarter 4, FY 2023
Synthetic Organic Chemicals Manufacturing Industry: Quarter 2, FY 2024
Polyether Polyols Production: Quarter 4, FY 2024
Chemical Manufacturing Area Sources: Quarter 4, FY 2024

The EPA will ensure that robust public engagement and needed information is made available to communities and other stakeholders for all proposed rulemakings.

Administrator Regan has directed the reconsideration of certain aspects of the 2020 air regulation "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing Residual Risk and Technology Review" in response to administrative petitions. The EPA will issue a Federal Register notice initiating public review and comment, including opportunities to testify at a virtual public hearing. The EPA will carefully review input received on proposed regulatory options before issuing a final rule. In addition, the agency consistently conducts outreach to EJ stakeholders to provide information on upcoming regulatory actions and to provide opportunities for meaningful engagement. The EPA hosts regular calls with EJ leaders where upcoming regulatory actions are shared, and routinely shares write-ups via OEJ's EJ listserv. As appropriate, the EPA will host webinars and schedule additional listening sessions for targeted feedback on EtO.

In addition to regulatory review, the EPA is also providing support to state and territorial air agency partners as they look more closely at emissions in areas that the National Air Toxics Assessment identified as potentially at increased risk of cancer from continuous, 70-year exposure to ethylene oxide in the outdoor air. This work has already led to steps that have reduced emissions at facilities in states such as Georgia and Illinois – faster than the EPA's rulemaking process can provide. The EPA will continue to provide partner agencies support in both follow-up technical work and in their efforts to share information with the public.

EtO and the Federal Insecticide, Fungicide, and Rodenticide Act

The EPA continues to assess potential human health risk that come from working in facilities that fumigate with EtO, living in communities near EtO facilities, and consuming spices with EtO.

The EPA regulates the use of EtO as a fumigant in the sterilization of medical devices and spices, which is considered both a conventional and antimicrobial pesticide under the Federal Insecticide, Fungicide and Rodenticide Act. Currently, there are 18 registered EtO products that are registered for use in commercial sterilization facilities.[16]

Risk from Consumption of Spices

In the EtO Draft Risk Assessment from November 2020, the EPA concluded that EtO is not considered a residue of concern for dietary exposure. Data from EtO spice sterilization studies indicate that EtO residues disappear rapidly after sterilization and are unlikely to be found in spices available for consumption.[17] A chronic dietary risk assessment was conducted for the EtO degradate ethylene chlorohydrin using the Dietary Exposure Evaluation Model - Food Consumption Intake Database, which incorporates food consumption data from the U.S. Department of Agriculture National Health and Nutrition Examination Survey, "What We Eat in America." The resulting chronic exposure estimates to the EtO degradate ethylene chlorohydrin do not exceed the level of concern.

Inhalation Risk

In the EtO Draft Risk Assessment from November 2020, the EPA conducted a qualitative analysis of EtO that cited the 2016 IRIS assessment as well as other assessments. The agency concluded that EtO presents inhalation risks to workers inside of EtO sterilization facilities as well as communities surrounding the EtO sterilization facilities, and that these risks need to be mitigated. The EPA's priority on the EtO case is to move as efficiently as possible toward mitigation. The EPA intends to propose mitigation measures in the Proposed Interim Decision, which will address risk to workers inside the sterilization facilities. The EPA may also incorporate bystander protection rulemaking into product label language.

Meaningful Engagement with Impacted Communities

To meaningfully engage impacted communities in addressing EtO exposure as an environmental justice issue, the EPA developed a cross-agency approach to conduct outreach and engagement efforts on EtO. Specifically, the EPA will seek public comment on environmental justice

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[16] US EPA. *Ethylene oxide: Product Status Information;* Available online at https://bit.ly/2XIb3G5; Last updated on December 11, 2016

[17] Regulation.gov. (2020, November 20) *Ethylene Oxide (EtO). Draft Human Health and Ecological Risk Assessment in Support of Registration Review Document ID EPA-HQ-OPP-2013-0244-0023*; available online at https://www.regulations.gov/document/EPA-HQ-OPP-2013-0244-0023

concerns upon the publication of the PID during the designated 60-day public comment period, projected for Fiscal Year 2022.

EtO and the Toxics Release Inventory Program

In April 2021, the EPA announced that it will take steps under the Toxics Release Inventory to increase access to environmental information by expanding the scope of TRI reporting requirements to include certain facilities that are not currently reporting on EtO releases.[18] On October 13, 2021, the EPA announced that it is taking a critical first step forward to expand the scope of TRI reporting requirements to include certain contract sterilization facilities that are not currently reporting their EtO releases.
Under the Emergency Planning and Community Right-to-Know Act, the EPA Administrator has discretionary authority to extend TRI reporting requirements to specific facilities based on a chemical's toxicity, the facility's proximity to other facilities that release the chemical or to population centers, any history of releases of the chemical at the facility or other factors that the Administrator deems appropriate.

The EPA has sent letters to 31 facilities providing notice that it is considering requiring those facilities to report EtO releases to the TRI under this discretionary authority. Some of these facilities will receive notice that they may also be required to report ethylene glycol releases to the TRI. Ethylene glycol is produced using ethylene oxide; thus, both chemicals may co-occur at facilities. Ethylene oxide and ethylene glycol have been on the TRI toxic chemical list since its inception in 1987.

Issues Related to Chemical Safety and Pollution Prevention

Safer Choice Program

The NEJAC recommended that the EPA partner with discount retail stores to implement the Safer Choice program at discount retail stores around the county. The NEJAC believes that Safer Choice can be a gateway to adopt comprehensive toxic policies to reduce toxics in their products and increase transparency of information available to the public.[19]

Safer Choice helps consumers, businesses and purchasers find products that perform and contain ingredients that are safer for human health and the environment. Safer Choice is an EPA Pollution Prevention program, which includes practices that reduce, eliminate or prevent pollution at its source, such as using safer ingredients in products.

The EPA recognizes the need to reach out to discount retail stores to help them adopt policies that will reduce potentially problematic chemicals in the products they sell, including suggesting that their customers look for Safer Choice-certified products. In 2022, Safer Choice outreach and

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[18] US EPA. Toxics Release Inventory Program; available online at https://bit.ly/3pB6b16; Website last updated September 22, 2021
[19] The NEJAC (2017, July 31). *Letter to Administrator Scott Pruitt re: Address Toxic Exposures Found At Discount Retail Stores*; Accessible online at https://bit.ly/3m9PtUc

partnership activities will add a specific focus on increasing awareness of and access to safer products for people of color and low-income communities.

Safer Choice will work with retailers and product manufacturers to help them develop even more products containing safer chemical ingredients that are easily identified and purchased. Safer Choice will also begin working with organizations that serve communities with EJ concerns to help custodial staff and house cleaning companies fight conditions such as asthma and gain access to safer products. Safer Choice will, through its Partner of the Year Awards, recognize organizations whose work results in the use of safer products in underserved communities, thereby furthering source reduction.

To enhance transparency and to facilitate expansion of safer chemical choices and products, the EPA has included on the program's website a list of non-confidential chemicals that meet the Safer Choice Program criteria and that are allowed in the program's labeled products. In FY 2020, this Safer Chemical Ingredients List contained more than 1,000 safer chemicals, and the EPA will continue to update this list in FY 2022 and FY 2023 as the program evaluates additional chemical ingredients and chemical categories and approves products for the use of the Safer Choice label. This list will be a helpful tool for discount retailers implementing chemical sustainability policies.

TSCA Risk Evaluations

In June 2021, the EPA reversed the previous Administration's decision not to assess air, water or disposal exposures to the general population in TSCA risk evaluations. For seven of the first 10 chemicals evaluated under section 6 of TSCA, the agency determined that the EPA should assess potential risks from these exposure pathways. The EPA is now developing a screening-level approach to conduct ambient air and surface water fence-line assessments to reveal potential exposures to TSCA substances in communities near chemical emitters. The EPA intends to make the procedures and application of the fenceline screening approach available for public comment and peer review early in 2022. For all future risk evaluations, the EPA intends to consistently and comprehensively address potential exposures to potentially exposed or susceptible subpopulations, including fenceline communities. The EPA is also working with tribal partners to better understand unique tribal lifeways and potential tribal exposures to inform risk evaluations under TSCA.

The EPA is committed to developing protective risk management actions for chemicals in a way that is transparent and includes meaningful consultations with communities and other stakeholders. For example, from January to August 2021, the agency conducted formal consultation and coordination with Tribal governments and held public engagements with communities with environmental justice concerns on risk management for nine of the first 10 high-priority chemicals undergoing risk management under TSCA. Participants at these sessions discussed the development of proposed actions under section 6(a) of TSCA to address the unreasonable risks for each chemical. The EPA held 36 consultation sessions and provided plain-language fact sheets on each chemical. These consultations drew more than 400 attendees, with an average of 20 participants providing comments during each session. Chemical risk managers

are using the feedback garnered during these consultations in the development of the risk management regulations.

Worker Protection Standards

The NEJAC conveyed the need for the EPA to commit resources to actively involve farmworkers in the development of Worker Protection Standards training materials and to convene with farmworkers to make information culturally and linguistically appropriate. The NEJAC also wants to ensure that WPS decision-making and provisions protect farmworkers, their families, and agricultural communities.[20]

On June 22, 2018, the EPA announced the availability of training materials covering the expanded content in the 2015 Worker Protection Standards in the Federal Register.[21] This notice triggered the WPS requirement that all trainings must include the new topics by December 19, 2018.

Initial training materials were developed through the Pesticide Education Resources Collaborative cooperative agreement with University of California Davis in partnership with Oregon State University.[22] The PERC Advisory Board consists of a diverse group of members from academia, farmworker advocacy and industry. These materials were informed by this group and the content reviewed and approved by the EPA, including EPA-approved trainings that contain the content required by the 2015 revised WPS. There are also new EPA-approved training materials developed by other organizations. Some of these materials are also available on the PERC website, but some are proprietary. The EPA has also developed a variety of additional educational materials, videos and outreach content over the past few years that have been informed by focus groups with farmworkers, such as updated pesticide safety posters that comply with WPS requirements.

Additional WPS efforts include the following:

- **Cooperative Agreement with the Association of Farmworker Opportunity Programs:** The EPA has a cooperative agreement with the Association of Farmworker Opportunity Programs to support the development of a suite of bilingual, low-literacy trainings and supplemental materials to address the most critical health and safety hazards in agricultural settings. This program is continually evolving to meet the needs of the farmworkers they serve. AFOP accomplishes this by gathering data through evaluations from workers and trainers to appraise the program and to track the efficacy of information and topics, as well as the format and manner of delivery of the content.

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[20] The NEJAC (2017, July 31). *Letter to Administrator Scott Pruitt re: Worker Protection Standard Regulation to Protect Farmworkers and Their Families from Toxic Pesticides*; Available online at https://bit.ly/3nqkfrn and the NEJAC's: (2018, December 18). *Re: Letter to Acting Administrator Andrew Wheeler re: Efforts to Rescind Portions of the Agricultural Worker Protection Standard and the Certification of Pesticide Applicators Rule*; available online at https://bit.ly/3GuMw99

[21] Federal Register Notice (2018, June 22). US EPA, *Announcement - Pesticides; Agricultural Worker Protection Standard; Notification of Availability*; (83 FR 29013); Available online at: https://bit.ly/3GmRbtp

[22] Pesticide Education Resources Collaborative (2019) *Home Page*; Available online at http://pesticideresources.org/

- **Stakeholder Engagement:** The EPA frequently meets with stakeholder groups to address concerns on education and outreach involving the WPS. The EPA recently convened a workgroup (Farmworker and Clinician Training Workgroup) under the Pesticide Programs Dialogue Committee to discuss evaluation of WPS activities, grants and program, and how and when EPA should reach out to stakeholders, including worker community-based organizations, in their development of analyses on the appropriateness and effectiveness of WPS activities.

- **Designated Representative:** In March 2019, the Pesticide Registration Improvement Extension Act of 2018 directed the EPA to carry out its 2015 revisions to the WPS, which includes the designated representative provision.[23] This provision enables a worker or handler to designate someone to seek pesticide application and safety information on their behalf and extends into agriculture a right that workers in other industries have had for many years. PRIA4 included a provision for the Government Accountability Office to conduct a study on the use of the designated representative provision. The GAO published its report on January 15, 2021.[24] The EPA is presently addressing GAO's recommendations by:

    - Working directly with co-regulators and others during the next 12-18 months to solicit comment and information on the use of the designated representative provision to determine whether farmworkers are using the provision and whether agricultural establishments are complying with the WPS requirements.
    - Providing updated content, guidance and explanation of the intent of the designated representative provision by posting information on the EPA website by January 2023.
    - The EPA has no plans to revisit or revise the designated representative through regulation at this time. The agency is fully implementing and enforcing the designated representative provision.

- **Application Exclusion Zones:** PRIA4 permitted the EPA to proceed with revisions to the AEZ requirements in the 2015 WPS. On October 30, 2020, the EPA issued a final rule revising the AEZ provisions under the WPS. The 2020 Rule, originally set to go into effect on December 29, 2020, made modifications to the 2015 WPS/AEZ requirements.[25]

  In December 2020, two petitions were filed in the U.S. District Court for the Southern District of New York and in the U.S. Second Circuit Court of Appeals challenging the 2020 Rule (now consolidated as case number 20 Civ. 10642).[26]

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[23] US EPA. *PRIA Overview and History*; available online at https://bit.ly/3vHIQvr. Website last updated on June 3, 2021

[24] Government Accountability Office (GAO) (2021, January). *Report: Farmworkers Additional Information Needed to Better Protect Workers from Pesticides Exposure*; available online at https://www.gao.gov/assets/gao-21-63.pdf

[25] US EPA (2020) *Announcement Worker Protection Standard Application Exclusion Zone: Revisions to the AEZ Requirements*; accessible online at https://www.epa.gov/pesticide-worker-safety/worker-protection-standard-application-exclusion-zone; Website last updated: August 16, 2021

[26] US District Court Southern District of New York (December 16, 2020). *US EPA; and Andrew Wheeler, in his official capacity as Administrator of the United States Environmental Protection Agency*; 20 Civ 10642; available online at https://www.epa.gov/sites/default/files/2020-12/documents/2020-12-16_states_complaint.pdf

At this time, the 2020 AEZ Rule has not been implemented, as a preliminary injunction has stayed the effective date of the 2020 Rule and enjoined the EPA from implementing the 2020 revisions. Therefore, until further notice, the 2015 WPS remains in effect with no changes to the AEZ provisions.

Concurrently, the EPA is reviewing the 2020 AEZ Rule per the Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.[27]

- **Minimum Age Requirements:** In addition to the designated representative provision, PRIA4 directed the EPA to carry out its 2015 revisions to the WPS, including the minimum age requirements. The EPA is fully implementing and enforcing the minimum age requirements, and there are no plans to revisit this requirement.

- **Certification of Pesticide Applicators:** PRIA4 also directed the EPA to implement the 2017 Certification of Pesticide Applicators Rule without revision through October 1, 2021. The EPA is fully implementing 40 CFR 171. All certifying authorities have submitted their certification plans to the EPA by the regulatory deadline of March 4, 2020. All plans are currently undergoing EPA review to meet the regulatory approval date of March 4, 2022.

Issues Related to the Advancement of Scientific Data and Tools to Support Environmental Justice

EJSCREEN and EnviroAtlas

The August 14, 2019, NEJAC letter raised concerns about data limitations due to the lack of completeness for the EPA's mapping tools in terms of areas of coverage for those tools. The NEJAC identified EJSCREEN and EnviroAtlas as examples with limited data in certain areas of the United States, its territories, and federally recognized tribal lands. Below is a detailed response to this letter including responses from questions presented during the NEJAC public meeting held on August 18-19, 2021.[28]

How is EnviroAtlas different from EJSCREEN?

While both EnviroAtlas and EJSCREEN provide geospatial information, they are fundamentally different tools. EJSCREEN is an environmental justice screening and mapping tool that uses standard and nationally consistent data to highlight places that may have higher environmental burdens and vulnerable populations. EnviroAtlas is an interactive web-based set of information, tools, data and maps that help decision-makers inform policy and planning by demonstrating connections between people, nature, health and the economy.

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[27] The White House (2021, January 20). *Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*; available online at https://bit.ly/3GlZaqT

[28] The NEJAC (2019, August 14) *Letter to Administrator Andrew Wheeler re: Data Limitations on EPA Mapping Tools*; available online at https://bit.ly/2ZksX2z

EJSCREEN combines environmental and demographic indicators to create EJ indexes. An EJ Index is a way of combining demographic information with a single environmental indicator – such as proximity to traffic – that can help identify communities that may have a high combination of environmental burdens and vulnerable populations. EJSCREEN offers a variety of powerful data and mapping capabilities that enable users to access the EJ indexes and other environmental and demographic information, at high geographic resolution, across the entire country, displayed in color-coded maps and standard data reports. These maps and reports show how a selected location compares to the rest of the nation, EPA region or state. Assessing EJSCREEN information is a useful first step in understanding or highlighting locations that may be candidates for further review or outreach based upon the likelihood of EJ concerns and issues.

EnviroAtlas allows users to access, view and analyze diverse data that can help address a wide array of questions, including those focusing on ecosystem services and how their many benefits affect human health and well-being. The EnviroAtlas interactive map lets users overlay nationally consistent and high-resolution data of different types, backed by informational fact sheets and extensive metadata. Built-in analysis tools allow users to graphically compare data across geographies, map upstream and downstream watershed networks, and explore changes in climatic conditions, among other functions. In addition to the variety of data in EnviroAtlas, users can explore the interconnections between humans and the environment using the Eco-Health Relationship Browser tool and associated literature review. EnviroAtlas also provides training modules, guides and educational lesson plans. In combination, EnviroAtlas tools and resources help citizens of all ages understand their surrounding environment, explore important human-environment connections and make informed decisions about the places where they live, learn, work and play.

What are the development plans for the tools?

The EPA has continued to develop EnviroAtlas to increase its capabilities and value for public, community and educator use. EnviroAtlas provides geospatial data, easy-to-use tools, and other resources related to ecosystem services (such as clean air and clean water), their chemical and non-chemical stressors and human health.[29]

EnviroAtlas provides hundreds of environmental data layers, as well as United States Census and other demographic data, for the contiguous U.S. All communities and Tribal lands in the contiguous U.S. are covered. EnviroAtlas also provides additional high-resolution data for featured populated places. The EPA acknowledges, however, that not all data contained in EnviroAtlas covers all areas of the United States at the same resolution and the agency is committed to continuously evaluating methods to expand data coverage and resolution data coverage especially for rural areas, Tribal lands, and the non-contiguous parts of the United States.

The EPA added GIS data layers to EnviroAtlas for Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. These include demographic data drawn from U.S. Census data. A subset of the full suite of environmental data layers that are available for the contiguous U.S. have also been

[29] US EPA; *EnviroAtlas*; available online at https://www.epa.gov/enviroatlas; Website last updated on September 14, 2021

added to EnviroAtlas for Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. As data become available, the EPA will continue to develop data layers for Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. The EPA is not yet able to develop the data layers for Guam or Samoa.

The EPA has added, subject to data availability, approximately 100 layers based on high-resolution data for featured populated places. The high-resolution data in EnviroAtlas draws from one-meter resolution land cover data (i.e., one data point for each square meter pixel on the ground), census data and models. The 100 high-resolution layers cover 1,400 cities and towns on 30 U.S. urbanized community areas covering a population of more than 65 million or 21 percent of the U.S. population.[30] These urbanized community areas range in size from Woodbine, Iowa, at 8.5 square miles and a population <2,000 to greater Chicago, Illinois, at 5,650 square miles with a population of 9.8 million as of the 2010 Census.

The EPA will continue to develop training materials so that all communities can use EnviroAtlas. A new feature has been added to EnviroAtlas to make it easy for users to zoom in to Alaska, Hawaii, Puerto Rico or the U.S VI and see all available data. All data layers in EnviroAtlas include data for Tribal lands, and a Tribal lands boundary layer. The EPA will continue to include all Tribal lands in the data layers.

The EPA will also continue to update EJSCREEN on an annual basis with the most current and comprehensive data available. Recognizing there are geographic areas for which some EJSCREEN data is lacking, the EPA is continually investigating data sources to fill these gaps. The EPA plans, for example, to integrate pertinent data from the Demographic Profiles released by the U.S. Census Bureau for the U.S. territories as soon as that data is released, which will enable the agency to generate EJSCREEN scores for the territories where there is also pertinent environmental data.

The EPA is focused on building mapping tools and solutions that help to meet the needs of all Americans. Towards this end, the EPA has continued to focus on increased capabilities and relevant datasets of tools such as EnviroAtlas and EJSCREEN. This includes improving data on Tribal lands, non-contiguous parts of the United States, rural communities, and territories. The EPA's tools use demographic, health, environmental, and other data from a variety of sources, but the agency acknowledges that not all datasets cover all areas of the United States equally. Some of the datasets are built by the EPA and many others are not. The EPA is committed to improving data coverage for EPA-produced datasets.

President Biden acknowledged these challenges and made calls to improve data throughout the federal family in Executive Order 13985. It calls for the establishment of an Equitable Data Working Group and notes that "*this lack of data has cascading effects and impedes efforts to measure and advance equity. A first step to promoting equity in Government action is to gather the data necessary to inform that effort.*" The EPA has been actively examining how the Agency can improve data collection, deficiencies, and dissemination through the EPA Equitable Data Working Group.

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[30] US EPA; *Municipalities within EnviroAtlas Boundaries*; available online at https://www.epa.gov/enviroatlas/municipalities-within-enviroatlas-boundaries; Website last updated on: March 26, 2021

A few different issues have created difficulties in mapping in Tribal lands, non-contiguous parts of the United States, rural communities, and territories. With respect to the demographic data, the U.S. Census does not collect the American Community Surveys in the territories, which makes obtaining reliable demographic information difficult. Additionally, there is a trend of underreporting in Tribal and immigrant communities. Rural areas are also often sparsely populated, potentially causing small pockets of disadvantaged communities and people with disabilities to be missed. Together, these limitations in demographic data reduce the effectiveness of tools like EnviroAtlas and EJSCREEN to identify vulnerable populations facing higher pollution burdens.

Likewise, obtaining reliable environmental data for the outlying and rural areas presents its own challenges. Many rural areas face environmental challenges, such as pesticide use and application, animal feeding operations and others for which there are no nationally consistent datasets, as data are tracked and managed by the individual states. Additionally, the territories do not have the same network of monitors and methods of measuring and tracking pollution. This makes mapping the issues and comparing them to standards in the states impossible. The EPA has been exploring ways the agency can use remote sensing data from satellites to fill the gaps left in the monitoring networks to better represent air quality issues in outlying areas, such as Alaska and the territories.

Both EnviroAtlas and EJSCREEN have always included a boundary layer for federally recognized Tribal lands. However, the EPA will expand the available mappable data on tribes. The EPA is in the process of updating this Tribal map to include American Indian off-reservation trust lands, Oklahoma Tribal statistical areas, and other federally recognized Tribes (without land in federal status, reservation, or trust). The EPA is also adding other areas of tribal interest in the EPA mapping applications (though they will appear separate from the federally recognized Tribal lands), including state recognized American Indian reservations, Alaska native regional corporations and Hawaiian homelands.

Additionally, OEJ is currently developing resources on environmental justice in rural communities. This is both in recognition of the fact that much of the early push for EJ was rooted in rural spaces, as well as the recognition that rural lands provide most of the nation's food, energy, drinking water and many other critical resources. Advancing EJ in rural places requires unique approaches and an understanding of the nuances particular to rural EJ issues. It is the EPA's hope that the agency can more fully incorporate these unique approaches and nuances into tools to better represent rural issues.

Moving forward, the EPA hopes to continue to work with the NEJAC to ensure that the agency fully considers all U.S. locations in its mapping applications and to integrate map layers that are critical to understanding the pollution burden impacting human health and the environment in these communities.

Has the use of EnviroAtlas to support communities been evaluated by the community users or recipients of information developed using EnviroAtlas?

Both the EnviroAtlas and EJSCREEN teams collect feedback from community users on an ongoing basis. User feedback is critical to the tools' development and is used to help direct data and functionality enhancements. There are several mechanisms by which feedback from community users is collected:

- Solicited informally during all workshops, trainings, and other presentations.
- Solicited as part of OMB-approved surveys conducted after each training/workshop/presentation.
- Users are encouraged to submit feedback via email and "Contact Us" webforms.
- Users are encouraged to submit feedback via a voluntary form used when users plan to download data; data download is one of three data access mechanisms available to users.
- The EnviroAtlas Team works with targeted communities of users (e.g., the Brownfields community, Chesapeake Bay community) to solicit feedback and develop targeted materials.

Prior to its initial public-facing launch, the EnviroAtlas team conducted beta-testing with more than 800 beta-testers. User feedback is incorporated prior to final versions being released. Approximately 36 percent of EnviroAtlas users are returning users, indicating the user community finds the tool useful. The EPA will continue to enhance and develop EnviroAtlas and EJSCREEN based on tracking the use of existing data layers and user search information for future data layers. For instance, the EnviroAtlas Team analyzes Google Analytics data that gives the agency a great idea of how much EnviroAtlas is being used, which parts of it are being used the most, which maps garner the most interest, and which sectors (e.g., industry, states, the EPA, other federal agencies, NGOs, universities, K-12 schools, local government, international users, etc.) are using the EnviroAtlas the most.

Pollution Monitoring in Communities

The September 29, 2017, NEJAC letter introduces the *Recommendations and Guidance for EPA to Develop Monitoring Programs in Communities* report provided to the EPA as guidance for how the agency can ensure that monitoring information required by permit or settlement is accessible by the local community and useful to the community. The NEJAC recommendations for a good community monitoring program include the collection of timely and useful data, providing accessible and accurate data, delivering monitoring reports in ways most accessible to the affected community and building community capacity.[31]

The EPA's Office of Research and Development has used research-grade measurements to study issues such as near-road air pollution, near-railyard air pollution, and fence-line monitoring near refineries. ORD's research program has included intramural research and extramural challenge grants that address the development of sensors and data visualization for air and water quality monitoring and for use in community science. Advances in sensor technology have enabled an

[31] The NEJAC (2017, September 29). *Report to Administrator Scott Pruitt re: Recommendations and Guidance for EPA to Develop Monitoring Programs in Communities*; available online at https://bit.ly/3pAwpRi

expansion of direct community member participation in air measurement studies. The EPA has made remote sensing (satellite) data publicly accessible through data visualization software.

Recently, ORD has partnered with EPA Regions 2, 5, 9 and 10 to pilot air sensor loan programs. ORD has begun advising Region 2 on the sensor loan program, while Regions 5, 9 and 10 will begin lending sensors pending ongoing pandemic issues and results will be evaluated for a more extensive program. The regional partners have been trained by ORD on how to use the sensors and implement the other materials developed (e.g., lesson plans, FAQs, resource guide) and look forward to making air sensors available to communities. ORD is also making all the resources for these programs available on the Air Sensor Toolbox for anyone to use.

In addition, Region 4 has been active in expanding the use of air sensor technologies through a separate ORD-supported project that is building and deploying air sensor collocation shelters with several air monitoring agencies within the region. The shelters will be deployed at official air monitoring sites, and they provide a place where Tribes, community groups, researchers, and individuals can bring their air sensors to operate them side-by-side with the regulatory monitors.

The EPA is collaborating with others to advance tools and other resources to inform communities, such as Bloomwatch, which uses crowdsourcing to help identify harmful algal blooms.[32] We are also engaging the private sector to develop new technologies to address issues of concern to communities. An example is the Advanced Septic System Sensor Challenge to develop affordable sensors to monitor septic system operation.

There are three ways citizen scientists can get involved in monitoring for cyanobacteria:

1. through the Cyanobacteria Monitoring Collaborative: crowdsourcing to find and report cyanobacteria blooms through the *bloomWatch App*[33]
2. mapping cyanobacteria to help understand where and when cyanobacteria species occur through *cyanoScope*[34]
3. monitoring cyanobacteria populations over time to help track seasonal patterns of cyanobacteria through *cyanoMonitoring.*[35]

ORD is periodically called upon to provide technical support, including at Tribal and community levels. For example, ORD is working with the Inupiat Community of the Arctic Slope (Alaska) to identify PFAS present in water, sediment and fish tissue.

For more information about ORD Monitoring projects, please refer to Table 1 below.

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[32] Cyanobacteria Monitoring Collaborative; *Homepage*; available online at https://cyanos.org/; Website accessed on September 21, 2021

[33] Bloomwatch App; *Crowdsourcing to Find and Report Potential Cyanobacteria Blooms*; available online at https://cyanos.org/bloomwatch/

[34] Cyanoscope; *Mapping Cyanobacteria one side at a time*; available online at https://cyanos.org/cyanoscope/

[35] Cyanomonitoring; *Professionals and Trained Citizen Scientist Monitoring Surface Water for Cyanobacteria*; available online at https://cyanos.org/cyanomonitoring/

Table 1. Additional information regarding various ORD monitoring projects mentioned is provided in this table.
The Village Green project was a community-based research effort to demonstrate near real-time air monitoring technology, engage the public in learning about local air quality and collect high-quality data for research by developing and installing self-powered park benches that were embedded with air quality and meteorological sensors to display live-stream data. (2014-2019)[36]
In the Kansas City Transportation and Local-Scale Air Quality Study (KC-TRAQS), EPA scientists worked with the community to deploy stationary, mobile and portable measurement technologies to provide comprehensive air quality monitoring in an area with a complex mixture of air pollution from highways, railways, and industry. (2017-2019)[37]
The EPA collaborated with the City of Louisville Metro Air Pollution Control District on a study that used novel Next Generation Emissions Measurement systems to measure hazardous air pollutants, including select volatile organic compounds, in the vicinity of Rubbertown's industrial facilities. (2017-2018)[38]
Data shared with community members led to a follow-on project: the development of the 'Odor Explore' mobile app, which will include additional measurements to better understand the causes of odors in the community. (2021 - ongoing)[39]
In the Wildfire-Advancing Science Partnerships for Indoor Reductions of Smoke Exposures Study, EPA scientists are partnering with the Missoula City-County Health Department in Montana, University of Montana, and the Hoopa Valley Tribe in California to measure air pollutants during periods when smoke episodes are anticipated. The team is analyzing data collected both indoors and outdoors and working with the communities to assess the effectiveness of air cleaning technology performance including low-cost and DIY methods. (2019 – ongoing)[40]
In August 2020, the EPA and the U.S. Forest Service launched a pilot program to include data from low-cost PurpleAir sensors on the AirNow Fire and Smoke map. EPA scientists developed a correction factor following numerous experiments to make data from the PurpleAir sensors comparable to regulatory grade instruments. Addition of these data significantly increased the temporal and spatial information available to the public regarding areas impacted by wildland fire smoke.[41]

[36] US EPA (2019, May 7) *Village Green Project Air Monitoring Stations A Success*; available online at https://www.epa.gov/sciencematters/village-green-project-air-monitoring-stations-success

[37] US EPA; *Kansas City Transportation and Local-Scale Air Quality Study*; available online at https://bit.ly/3BbPrj1; Website last updated: June 11, 2021

[38] US EPA; (2021, February 9). *Next Generation Emission Measurements Help Understand Air Pollutants in Rubbertown Industrial Area of Louisville, Kentucky*; available online at https://bit.ly/2ZskXMH; Website Last Updated on July 8, 2021

[39] US EPA, *Odor Explore: A Citizen Science Project Using a Mobile App and New Measurement Approaches;* available online at https://bit.ly/3Gm3Lco; Website last updated on July 29, 2021

[40] US EPA, *Wildfire Study to Advance Science Partnerships for Indoor Reductions of Smoke Exposures*; available online at https://bit.ly/3Bc9nSS; Last Updated on September 14, 2021

[41] US EPA, *Technical Approaches for the Sensor Data on the AirNow Fire and Smoke Map*; accessible online at https://bit.ly/3jBwb8J; Website last updated August 3, 2021

Table 1. Additional information regarding various ORD monitoring projects mentioned is provided in this table.
ORD has initiated a new sensor and monitor loan program to support communities and firefighting personnel during wildfire events. This program is titled "Wildfire Smoke Air Monitoring Response Technology lot project" and includes loans of Purple Air and ThingyAG sensors, as well as the Vehicle Add-on Mobile Monitoring Systems, which are loaned to air agencies or other support staff working at fire incident locations to develop better data that can be provided to communities. (2020 – ongoing)[42]
Village Blue is a joint EPA/USGS effort to apply water quality sensors to waterbodies and share the real-time water quality data via a website. The first project, Village Blue-Baltimore Harbor was conducted from 2017-2019, while more recently, the Village Blue-Lake Pontchartrain project was set up in 2021 and is currently active. The water quality parameters evaluated in the current effort include algae, chlorophyll, turbidity, dissolved oxygen, nitrate, temperature and pH. (2019-2019, 2021 – ongoing)[43]
The Cyanobacteria Assessment Network Application is a mobile app that provides users with access to cyanobacterial bloom satellite data for more than 2,000 of the largest lakes and reservoirs in the US. The app was designed to assist water quality managers in identifying and managing blooms and is also available to the general public. This app developed out of the CyAN Project, which is a joint effort by NASA, NOAA, USGS and EPA. (2017 – ongoing)[44]
The EPA ORD and Region 1 worked on a team to create the Cyanobacterial Monitoring Collective, which supports three coordinated monitoring projects to locate and understand harmful cyanobacteria. One of the tools, Bloomwatch, engages the public through crowdsourcing to find and report where potential cyanobacteria blooms appear. The second tool, cyanoScope, uses modern technologies and a social approach to learn more about cyanobacteria and their distribution. The third project, the cyanoMonitoring program goes beyond cyanobacteria bloom events to monitor cyanobacteria populations over time, using a long-term systematic approach to understanding how cyanobacteria respond to environmental conditions to learn how and why problems may occur. (2017 – ongoing)[45]
Sensor Pod Loan Trial for Investigating Regional and Community Air Pollution: the EPA regions and the communities they serve want to understand the pollutant concentrations in the air they breathe and want to be aware of potential pollution exposures in microenvironments where they live and work. Fixed regulatory monitoring networks might not be able to capture these local-scale conditions. This project will give regions (and/or their local partners) the ability to investigate local and regional air quality using lower cost sensors through a sensor pod loan trial. With the results, ORD will be able to assess the need for a larger and more permanent program and the success of the actual sensor technology for future projects. The

[42] AirNow, *Fire and Smoke* Map (Version 2.0) accessible online at https://fire.airnow.gov/; Website latest updated on September 21, 2021

[43] US EPA *Village Blue: Real-Time Water Quality Monitoring to Help Communities Better Understand Local Water Quality*; available online at https://www.epa.gov/water-research/village-blue; Website last updated: March 12, 2021

[44] US EPA; *Cyanobacteria Assessment Network Application (CyAN app); available online at* https://bit.ly/3GnBu5w; Website last updated: July 20, 2021

[45] Cyanobacteria Monitoring Collaborative; *Homepage*; available online at https://cyanos.org/; Website accessed on September 21, 2021

Table 1. Additional information regarding various ORD monitoring projects mentioned is provided in this table.
information from this study will provide educational opportunities for the communities to learn about air quality and will uncover a better understanding on local air quality and community health. (2017 – 2019)[46]
Wildland Fire Sensor Challenge*: Development of low-cost sensors to monitor air quality from forest fires. (2017-2018)[47]
Cleaner Indoor Air Wildfire Smoke Challenge *: Solutions for cleaning indoor air during wildfire smoke or other high pollution events (Winners to be announced Fall 2021)[48]
Nutrient Sensor Action Challenge: Empower communities to use nutrient sensor data in decision making (2017-2019, 2 phases)[49]
Smart Advanced Septic System Sensor Challenge*: Develop affordable sensors to monitor for septic system operation (2021)[50]
Campus RainWorks (OW Challenge) *: Competition that engages college students in the design of green infrastructure solutions to address stormwater pollution. (2021)[51]

** Challenges have rapidly gained support across federal agencies as a way to promote innovation and accelerate problem solving. By harnessing the ingenuity and creativity of the public, these incentive competitions can solve pressing problems, while stimulating innovative thinking and encouraging public collaboration in government activities.*

In late fall 2021, the EPA's Office of Air and Radiation will launch a $20 million grant competition that will call for proposals from community groups, state, Tribal and local air agencies – individually or in partnerships – to conduct monitoring of pollutants of greatest concern in communities with health outcome disparities. This grant competition is made possible through the appropriation the EPA received from ARPA. OAR's primary objective in issuing these grants is to provide better air quality information in communities. The EPA will give grants to support community and local efforts to monitor their own air quality and to promote monitoring partnerships between communities and state, Tribal and local governments.

The EPA has engaged with partners to solicit feedback and insight about the design of the competitive grant competition portion of the air quality monitoring appropriation, including sessions with Tribes, community representatives, and state and local air agencies.

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[46] US EPA; *RESES Projects by Subject;* available online at https://bit.ly/3jBPy1c; Website last updated on May 13, 2021

[47] US EPA, *Winners of the Wildland Fire Sensors Challenge Develop Air Monitoring System Prototypes*; Available online at: https://www.epa.gov/air-research/winners-wildland-fire-sensors-challenge-develop-air-monitoring-system-prototypes; Website Last updated on August 21, 2020

[48] US EPA, *Cleaner Indoor Air During Wildfires Challenges*; Available online at: https://www.epa.gov/air-research/cleaner-indoor-air-during-wildfires-challenge; Website Last updated on March 17, 2021

[49] US EPA, *Nutrient Sensor Action Challenge*; Available online at: https://www.epa.gov/innovation/nutrient-sensor-action-challenge; Website last updated on July 28, 2021

[50] US EPA, *Smart Advanced Septic Systems Challenge*; Available online at: https://www.epa.gov/innovation/smart-advanced-septic-systems-challenge; Website last updated on June 11, 2021

[51] Penn Today, *Penn group wins EPA Campus RainWorks Challenge*; Available online at: https://penntoday.upenn.edu/news/penn-group-wins-epa-campus-rainworks-challenge; published April 20, 2021

Issues Related to Youth Engagement on Climate Change

The July 12, 2018, NEJAC letter introduces the *Youth Perspectives on Climate Change* report provided to the EPA with recommendations for best practices for addressing climate change concerns from a youth perspective. The NEJAC letter highlights that successful youth engagement on climate change can be supported by efforts that mentor and train youth leaders and engage youth in decision-making, build capacity by allocating resources for youth development, and develop and implement principles for engaging youth on climate justice.[52]

The EPA is pursuing several efforts, primarily through ORD, to develop best practices for youth engagement to address human health and environmental risks including the impacts of climate change:

- ORD's EnviroAtlas team has produced teaching materials and curricula for training youth in K-12 and college, available online at www.epa.gov/enviroatlas.
- The EnviroAtlas team has ongoing engagements with communities. An example is Project PEACE by Youth, (PEACE is an acronym for Promoting Environmental Action and Community Empowerment). This project is designed to engage young people on issues of importance in their own communities and to build their capacity to use online tools to understand, explore, and to create action plans to address local issues. Over the course of a year, teachers and students engage in local, place-based problem-solving using the EnviroAtlas tools and resources.
- In 2021, ORD's Community Engagement-STEM program led 37 sessions, with a total of 837 participants in several low-income North Carolina school districts with diverse student populations, of GENERATE: The Game of Energy Choices. GENERATE was developed by EPA researchers in Research Triangle Park to demonstrate how using fossil fuels to generate electricity impacts air quality, climate, and surface water consumption. Participants learned how renewable energy and energy efficiency can reduce such impacts.
- ORD has recently hired a STEM Outreach Coordinator for EPA Cincinnati. The goal for the new coordinator is to design, develop, and implement an outreach strategy to engage and grow relationships with local K-12 and university STEM leaders that includes facility tours, internship/mentorship programs, and science-related events/celebrations at EPA Cincinnati and community wide. A big component of this effort will be building relationships with Minority Serving Institutions and students, teachers and schools in underrepresented communities.
- ORD was involved in creating the "Awesome Girls: Protect the Planet" virtual event with the Girl Scouts of the USA, targeted for elementary through high school youth. The virtual event was recorded in December 2020, and through playback, it still provides youth with a way to learn about the EPA and citizen science and to earn an EPA patch.
- The EPA's local programs such as the Community Engagement and STEM Education Program in EPA's Research Triangle Park facility are committed to increasing equity and

[52] The NEJAC: (2018, July 31) - *Report to Acting Administrator Andrew Wheeler re: Best Practices for Youth Engagement and Addressing Health Impacts of Climate Change*; Available online at: https://www.epa.gov/sites/default/files/2018-10/documents/nejac_youth_perspectives_on_climate_change_report.pdf.

building capacity for a more diverse workforce and prioritizing requests from schools with a high percentage of free or reduced-cost lunches.

- ORD is building on its long-term STEM outreach collaboration with science teachers at Durham, N.C.'s Southern High School to establish a Youth Climate Council during the 2021-22 school year. The council will build student capacity to be part of the community solution to addressing climate change at this diverse and low-income school (80 percent free/reduced lunch, 48 percent black, 45 percent Hispanic).
- Developing the capacity for educators to use EPA education resources helps ORD reach more students and expands the EPA's ability to protect human health and the environment. In FY21, ORD provided training for 130 educators through multiple programs including our Memorandum of Understanding with the N.C. State University Kenan Fellows Program for Teacher Leadership, the N.C. Department of Public Instruction, the WakeEd Partnership and the OAR's Air Quality Workshop for Educators.
- In June 2021, ORD hosted its 11th annual Summer Science Institute for High School Students. The weeklong program teaches students about how the EPA protects human health and the environment and educates them about EPA research through interactive activities during 18 sessions.
- The EnviroAtlas team fosters youth empowerment, autonomy, and community capacity through educational resources. These include ready-made lesson plans for every grade level, from kindergarten through undergraduate (2016-2020), which are:
  - Aligned with Next Generation and State Science Standards for each grade in the Appendix; and
  - Can be used in formal and informal educational settings.
  - Presented in four modules:
    - Connecting Ecosystems and Health
    - Building a Greenway
    - Exploring your Watershed (available in English and Spanish)
    - Exploring Ecosystem Services
- ORD's Community Engagement-STEM program has hosted 12 workshops for a total of 350 students and educators utilizing the Building a Greenway module.
- EPA EnviroAtlas staff continue to mentor recent college graduates entering the EPA via various internship programs. More than 60 recent graduates have started their careers working on EnviroAtlas projects spending two-five years with the EPA and working on everything from climate science to gentrification.
- The EnviroAtlas team recently published their model for youth-led EJ action in a recent peer-reviewed article, "Empowering Environmental Justice Decision Makers: Increasing Educational Resources for EPA's Mapping Tools."[53]
- The EnviroAtlas Team recently held an 8-session training for EPA employees with the goal of developing our internal capacity to teach the EnviroAtlas Educational lessons.[54]
- ORD and OEJ have worked with co-sponsor organizations on an EJ video challenge with the goal of incentivizing university-level students in the United States and its territories to

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[53] Jenna M. Hartley, Stacey Lobatos, Jessica L. Daniel, and Tai Lung (17, June 2021); *Empowering Environmental Justice Decision Makers: Increasing Educational Resources for U.S. Environmental Protection Agency's Mapping Tools*; Published by Mary Ann Liebert, Inc. https://www.liebertpub.com/doi/10.1089/env.2021.0037

[54] US EPA *EnviroAtlas Educational Materials;* available online at https://www.epa.gov/enviroatlas/enviroatlas-educational-materials; Website last updated on October 28, 2020

develop solutions to address community EJ challenges while helping to build capacity in communities through the use of publicly available tools and data to characterize environmental health needs and community vulnerability to environmental health hazards. The EPA expects to launch the Challenge in Fall 2021.

Issues Related to Disposal of Hazardous Wastes and Response to Chemical Disasters

The EPA sincerely thanks the NEJAC for its May 2021 report titled *Superfund Remediation and Redevelopment for Environmental Justice Communities*. The agency embraces the need for better outcomes in communities where there are unique burdens and vulnerabilities of overburdened populations living in and around Superfund sites, and the agency looks forward to continued work with the NEJAC to find solutions. The EPA has reviewed the report and its 36 specific recommendations for integrating environmental justice into the cleanup and redevelopment of Superfund and other contaminated sites. The EPA appreciates and supports the NEJAC's overall goal to continue to address barriers, develop solutions, and recommend best practices for improving the EPA's ability to expedite Superfund cleanups.[55]

Below is the EPA's response to the specific recommendations based on the report's seven strategies. This response is based on a review of existing efforts, including the EPA's commitments under the Office of Land and Emergency Management's Environmental Justice Action Plan. In sections identified as needing greater clarification, the goal is to improve the agency's understanding of intended outcomes to determine whether ongoing EPA activities are already achieving them. OLEM looks forward to further discussion regarding the NEJAC's recommendations in this critical area.

The EPA has organized its responses to the report's recommendations into three categories:

1. Activities where the EPA intersects or commits to expanding or enhancing its work (19 recommendations).
2. Activities where the EPA needs further clarification from the NEJAC (15 recommendations).
3. Recommendations the EPA does not currently plan to implement (2 recommendations).

Activities Where EPA Intersects or Commits to Expanding or Enhancing Work

NEJAC Report Strategies 1 and 2 recommend that the EPA implement more intensive community engagement practices at Superfund sites; revise and update guidance and strengthen polices focused on understanding and responding to community needs.

Strategies one and two include several recommendations pertaining to EPA's Office of Superfund Remediation and Technology Innovation's work to conduct early and meaningful involvement at Superfund sites impacting EJ communities and to overcome trust issues with effective risk communications. OSRTI is committed to continuously improving the robust tools and resources that are already available in the community involvement program. OSRTI is also

[55] The NEJAC (2021, May 6) - Report to Administrator Michael Regan re: Superfund Remediation and Redevelopment for Environmental Justice Communities; available online at https://bit.ly/3EeGLdz

focused on sharing best practices and case studies, updating policies and guidance and strengthening technical assistance services.

Additionally, community involvement coordinators are assigned to every Superfund site, and their role is to ensure early and meaningful engagement with the community, including local officials. Community involvement plans are prepared for every Superfund site to identify specific community concerns, based on community interviews and input and serve as the blueprint for community involvement activities.

In addition to continuously improving the community involvement program, OSRTI plans to introduce a number of new activities and pilots to help Superfund go beyond the regulatory requirements when conducting community engagement and to further embrace the need for better outcomes in disadvantaged communities and people with disabilities. These include:

- OSRTI is developing numerous activities to support Executive Order 14008 and the White House Justice40 Initiative, and to specifically support potential communities with EJ concerns that may be impacted by Superfund sites (more information about Justice40 is addressed under the response to strategies 6 and 7). Superfund is currently developing consistent regional protocols for identifying sites in Superfund Enterprise Management System that may be in or near communities with EJ concerns. In addition, OSRTI convenes monthly EJ discussions among Community Involvement Coordinators and other site team members.
- A new pilot project will provide a more holistic approach to communities early in the Superfund process.
- As part of a Memorandum of Understanding between OSRTI and the Department of Housing and Urban Development, the EPA is working to identify Superfund sites near HUD facilities and assess the need for potential cleanup activities.
- The EPA is also in discussions with HUD and other agencies regarding a more holistic and collaborative approach to addressing multiple sources of lead at Superfund sites.
- The EPA offers robust risk communications training and has made additional training and expertise available through a recently hired risk communications advisor. OSRTI agrees that it would be useful to encourage state and local counterparts to also participate in these trainings (more information on training under the NEJAC Strategy 3). OSRTI also convenes monthly program meetings to discuss current issues and concerns and to share best practices.

OSRTI is committed to training the EPA site teams to be familiar with all community involvement tools, techniques and resources and to bring consistency in how these are shared with communities. OSRTI is also committed to enhancing the use of online community engagement tools.

OSRTI provides communities with access to technical assistance opportunities through Technical Assistance Grants and Technical Assistance Services for Communities Program. The EPA also implements the Superfund Job Training Initiative, which has led to employment opportunities for community members at numerous sites. OSRTI is currently updating the TAG website and working with a committee of citizens and EPA staff to update the TAG application process to make it easier for communities to apply. The EPA also conducts technical assistance needs assessments to provide communities with the right tools and resources.

The NEJAC Report Strategy 3: Update, improve and expand training that reaches impacted communities, EPA staff, and state staff

NEJAC's Strategy 3 recommendations present several opportunities for OSRTI to expand its training to provide more and varied opportunities to train community members, local officials, and states. OSRTI is currently or plans to:

- Expand its robust Community Involvement University to create a new community track for CIU. To accomplish this, OSRTI will work with Superfund site teams, state and local health departments and other stakeholders;
- Work with Superfund's Technology Innovation and Field Services Division to determine how to strengthen tribal engagement;
- Provide risk communication training to site teams and work closely with state and federal health partners to communicate potential health risks to communities;
- Provide a variety of state-of-the-art community involvement and risk communication training to site teams through our Community Involvement University and CERCLA Education Center training programs.

The NEJAC Report Strategies 4 and 5: Elevate future use planning as a core element of the Superfund process; leverage redevelopment and reuse as a catalyst for innovation and accelerated cleanup

NEJAC's recommendations for strategies 4 and 5 are focused on the consistent and early establishment of a common, community-driven end-state vision at Superfund sites. ORSTI is committed to strengthening its reuse and redevelopment tools, with early planning as a core element of the Superfund process and as a means to accelerate site progress. The EPA's Superfund Redevelopment Program provides a multitude of tools, assistance, and seed-funding to support communities with redevelopment and reuse and has helped communities reclaim and reuse thousands of acres of formerly contaminated land. Both needs assessments and reuse assessments are available for communities as early as possible in the Superfund process and include visioning and charrettes.

OSRTI is currently in the process of enhancing the Superfund Redevelopment Program by examining ways to provide more training to site teams and more emphasis on early engagement to help communities plan for the beneficial reuse of sites and emphasizing the role redevelopment plays in protecting the remedy. As mentioned above under Strategy 1, OSRTI is also piloting a holistic approach to introducing Superfund to communities early in the process. The EPA's Technology Innovation and Field Services Division provides technical support to RPMs, upon the request of the region, to encourage the use of innovative approaches. TIFSD also reaches out to Remedial Project Managers with information on innovative approaches and includes that material in our internal training programs. In addition, TIFSD recently developed

an internal list of technical experts throughout the Agency, by area of expertise, that RPMs can consult with to help them identify the support they need.

The NEJAC Report Strategies 6 and 7: Ensure equity in all aspects of the Superfund program; increase access to resources for impacted communities

Per Executive Order 14008, OSRTI is developing an implementation plan to support the Justice40 initiative that identifies and tracks Superfund benefits to overburdened, disadvantaged and vulnerable communities and people with disabilities.

Under the Justice40 Implementation Plan, the Superfund program is exploring how to track resources to disadvantaged communities and people with disabilities. This aligns with:

- developing a Budget Equity Tool and building in equity as a key component of EPA budgeting and financing at Superfund sites.
- setting site specific goals for the percentage of EPA cleanup spending that directly supports the impacted communities and publicly track performance toward meeting these goals.
- expanding availability and improving accessibility of EPA resources for impacted populations at Superfund sites.

Additional related efforts include the existing Superfund Job Training Initiative that provides training in soft and life skills; enhanced federal government collaboration to address multiple sources of lead; and potential redevelopment opportunities the EPA is exploring with HUD.

Activities where the EPA needs further clarification from the NEJAC

OLEM looks forward to engaging with the NEJAC soon to discuss the council's intent and thinking regarding the following recommendations:

- develop a program-level Decision-Making Engagement Guidance aimed at more substantive and consistent involvement of impacted populations
- develop and issue guidance on using an Impacted Community Centric/Concentric Circle Approach to Stakeholder Engagement
- develop and issue revised guidance (and training) on remedy enhancement and betterment, as an update to OSWER Directive 9200.3-110
- establish and maintain a Case Study Repository with structured data collection and search capabilities
- establish/ promote "Communities of Practice" among RPMs structured around technologies, site types or other knowledge categories for sharing best practices
- establish a Remediation and Redevelopment "Innovation Incubator" within the EPA focused on leveraging redevelopment and reuse as a catalyst for effective, accelerated cleanup.
- expand the use of community-driven Health Impact Assessments as needs assessment and business planning tools
- establish a Superfund Equity Pilot Program for impacted communities addressing contaminated site remediation and redevelopment

- scale from a Superfund Equity Pilot to an established Equity Program (EPA is exploring potential redevelopment opportunities with HUD)
- develop and implement proactive measures that minimize the displacement of long-time community residents due to gentrification and foster redevelopment that is beneficial to the community (address under Superfund Redevelopment Program)
- develop a roster of potentially interested national, regional and local foundations and convene a community of practice between these foundations and impacted communities
- increase access to funding for impacted communities by improving the funding/grant management process that is need-based
- foster engagement of financial institutions in supporting revitalization through community EJ developers (covered under Superfund Redevelopment program)
- form EPA cross-department partnerships to increase access to resources for impacted populations (intersects with lead collaboration and HUD-EPA collaboration).

Recommendations that EPA Does Not Currently Plan to Implement

Due to limitations in EPA's authorities, the agency is unable to implement these two recommendations from the NEJAC report:

- Develop and fund a Superfund Community-Based Reuse Area-Wide Planning Grant Program and implement an SCBR-AWP pilot to develop a proof of concept (OSRTI believes existing tools may accomplish this goal without needing legislative authority).
- Re-institute the Community Action for a Renewed Environment grant program.

Additional Activities

The NEJAC recommended an increase in funding to address the backlog of unfunded Superfund cleanup projects impacting communities with EJ concerns. The Biden-Harris Administration has requested additional funding for fiscal year 2022 for the Superfund Program for this purpose.[56]

The EPA completed a final action to establish no new regulatory requirements under the Clean Water Act authority for hazardous substances discharge prevention and containment in 2019. To make this determination, the agency analyzed the existing framework of EPA regulatory requirements and the frequency and impacts of reported CWA hazardous substance discharges.

Administrator Regan has directed the development of a proposed rule to require certain facilities to develop plans to respond to worst-case discharges of CWA hazardous substances. The proposal would apply to facilities that have the potential to harm public health or the environment in the event of a worst-case discharge. The EPA recognizes that communities of color and low-income communities are more likely to be in proximity to these facilities, and thus potentially at a greater risk, than other populations, as was pointed out in the NEJAC's 2015 report on industrial waterfront communities. The EPA intends on publishing a proposed rule by

[56] The NEJAC (2019, August 14) - *Letter to Administrator Andrew Wheeler re: Recommendations for Promoting Environmental Regulation on Aboveground Storage Tanks*; available online at https://bit.ly/3BaphwT

March 2022, as was reflected in the 2021 Spring Regulatory Agenda as *Clean Water Act Hazardous Substance Worst Case Discharge Planning Regulations,* RIN 2050-AH17.[57]

The EPA has identified the Risk Management Program regulation as an action for review in accordance with Executive Order 13990 Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.[58] EPA is reviewing prior RMP actions completed since 2017, including the 2017 Final Amendments to the RMP Rule and 2019 Final RMP Reconsideration Rule.[60] The EPA held virtual public listening sessions on June 16 and July 8, 2021, at which interested parties had the opportunity to present information, comments or views pertaining to the review of the RMP regulation. The EPA continues to work towards having a proposed rule published by September 2022, as reflected in the 2021 Spring Regulatory Agenda as *Accidental Release Prevention Requirements: Risk Management Program Under the Clean Air Act: Retrospective Rule,* RIN 2050-AH22.[61]

Issues Related to the National Environmental Policy Act

In the August 14, 2019, letter, the NEJAC recommended that the EPA work with other federal agencies and CEQ to strengthen the validity and integrity of environmental justice analysis and considerations in the NEPA process. Specific recommendations and concerns highlighted in the July 12, 2021, letter related to the need to improve the quality and quantity of environmental justice analyses integrated into NEPA documents, improve the economic impact analyses in NEPA documents and enhance the consideration of environmental justice community benefits in the identification of the environmentally preferable alternative.[62]

Administrator Regan has directed the EPA NEPA program to strengthen consideration of impacts on communities with EJ concerns as well as consideration of climate change impacts in reviews of other federal agencies' environmental impact statements. In response, EPA staff have redoubled their efforts, added expertise to review teams and engaged with other federal agencies to promote more robust consideration of EJ and climate change. For example, the associate administrator for Policy, acting general counsel and deputy associate administrator for Policy recently met with the Chair of the Federal Energy Regulatory Commission to convey concerns expressed in the EPA's May letter to FERC in response to the FERC notice of inquiry on proposed updates to their policy statement on the Certification of New Gas Facilities. The EPA is actively working with the White House Council on Environmental Quality and other federal agencies in various interagency working groups to provide recommendations on how to improve

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[57] *Clean Water Act Hazardous Substance Worst Case Discharge Planning Regulations*; RIN 2050-AH17 Publication ID Spring 2021; available online at https://bit.ly/3vUUQKt

[58] The NEJAC: (2019, May 3), *Letter to Administrator Andrew Wheeler re: Recommendation to Preserve the Chemical Disaster Safety Rule*; available online at https://bit.ly/3EigxXL and Federal Register (2021, January 25). *Executive Office of the President: Executive Order 13930 Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis*; available online at https://bit.ly/3Bod9J7

[60] US EPA. *Final Amendments to the Risk Management Program Rule;* available online at https://bit.ly/2XI6hIF; Website last updated February 26, 2021 and US EPA. Final Risk Management Program Reconsideration Rule; available online at https://bit.ly/3nuNZUd. Website last updated on February 26, 2021

[61] *Accidental Release Prevention Requirements: Risk Management Program Under the Clean Air Act; Retrospection* Publication ID Spring 2021; available online at https://bit.ly/3b8kDVW

[62] The NEJAC: (2019, August 14). *Letter to Administrator Andrew Wheeler re: National Environmental Policy Act and Environmental Justice;* available online at https://bit.ly/3Gm9gYA

the integration of EJ and climate change concerns into NEPA, paying particular attention to the recommendations and concerns the NEJAC has raised.

The EPA serves three primary roles under the National Environmental Policy Act and under Section 309 of the Clean Air Act:

- reviewing the EISs of other federal agencies, providing recommendations to lead agencies to improve the analysis within the EIS and recommending options to avoid and minimize impacts to environmental resources;
- managing national EIS filings and issuing the Notices of Availability for federal EISs in the Federal Register to initiate the start of the public comment and review periods; and
- complying with NEPA for EPA-led actions that meet NEPA thresholds, such as certain grant and permit programs administered by the EPA.

Since most of the NEJAC recommendations extend beyond EPA's Section 309 review role and apply to all federal agency actions, the EPA has shared these recommendations with the CEQ. CEQ's responsibilities include issuing policy, guidance and regulations for all federal agencies on how to comply with NEPA. The EPA has also shared these recommendations with the NEPA Committee under the Environmental Justice Interagency Advisory Committee (formerly the EJ Interagency Working Group), which provides a forum for federal agencies to collectively advance EJ principles.

Under EPA's Section 309 review role, the EPA reviews other federal agencies EISs for adequacy, including the adequacy of the alternatives analysis. When there may be additional reasonable alternatives that may avoid or minimize the impacts, including impacts to communities with EJ concerns, compared to the proposed action, the EPA identifies these options for consideration by the lead federal agency as potentially the environmentally preferable alternative under NEPA. The EPA strives to identify other avoidance, minimization and mitigation options for the proposed action as well that may reduce impacts to communities with EJ concerns. In addition, as part of the EPA's review, the EPA may review and comment on the economic analysis of potential effects that may occur because of the proposed federal actions.

Providing technical assistance through early engagement to federal agencies is a key principle in the EPA's NEPA and Section 309 responsibilities. Engaging early with federal agencies and sharing EPA expertise on how to better integrate EJ concerns in the NEPA analysis allows the agency to help other federal agencies identify a complete range of reasonable alternatives that meet the purpose and need of the proposed action and consider options to avoid and minimize potential impacts early in the planning process. The EPA continues to engage directly with lead agencies to ensure EJ issues are fully considered, consistent with the EPA's priorities. Recently, the EPA provided recommendations to the U.S. Army Corps of Engineers and FERC that any affected communities with EJ concerns identified during their NEPA process be offered an opportunity to provide input.

The EPA is currently reviewing and updating its Section 309 review program policies, procedures and tools to identify opportunities to improve the quality and consistency of the EPA reviews overall and specifically as it relates to concerns regarding EJ and climate change. The EPA is working with CEQ and interagency working groups, such as the Federal Interagency

Working Group on Social Cost of Greenhouse Gases and the Federal Environmental Justice Advisory Committee, to promote improved and enhanced integration of environmental justice concerns in all federal agency NEPA decisions.

Since the EPA's role in the NEPA process is unique, Office of Policy staff have reached out to the NEJAC's NEPA Working Group and soon plan to have the first of what may be many discussions to share specifics on the EPA's Section 309 review role as it pertains to NEPA. The EPA will be available to discuss other ideas the NEJAC members may have to help the agency improve its comments and recommendations to other federal agencies.