

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ENVIRONMENT JUSTICE ADVISORY COUNCIL**

VIRTUAL PUBLIC MEETING

Washington, District of Columbia

JUNE 17, 2021

TABLE OF CONTENTS

AGENDA	6
PREFACE.....	8
MEETING SUMMARY.....	9
INTRODUCTIONS & OPENING REMARKS.....	9
REQUEST TO NEJAC & BACKGROUND ON THE NATIONAL RECYCLING STRATEGY DOCUMENT.....	14
EPA NATIONAL RECYCLING STRATEGY - NENA SHAW	16
NEJAC 100 DAYS LETTER DRAFT FINAL DOCUMENT	21
NEJAC 100 DAYS LETTER DISCUSSION	35
ORAL PUBLIC COMMENT PERIOD	38
NEJAC BUSINESS MEETING REFLECTION AND CONVERSATION	77
CLOSING REMARKS AND ADJOURN	89
MEETING ATTENDEES - APPENDIX A	91
NATIONAL RECYCLING STRATEGY PART 1 OF A SERIES ON BUILDING A CIRCULAR ECONOMY FOR ALL - APPENDIX B	105
NATIONAL RECYCLING STRATEGY PART 1 OF MOVING TOWARDS A CIRCULAR ECONOMY FOR ALL - APPENDIX C	173
WRITTEN PUBLIC COMMENTS SUBMITTED - APPENDIX D	182

ATTENDEES LIST

SPEAKERS AND FACILITATORS	
KAREN MARTIN	Outgoing Designated Federal Officer (DFO) Environmental Protection Agency (EPA)
FRED JENKINS	Incoming Designated Federal Officer (DFO) Environmental Protection Agency (EPA)
MATTHEW TEJADA	Director, U.S. EPA Office of Environmental Justice
PAULA FLORES-GREGG	U.S. EPA Office of Environmental Justice
NENA SHAW	Acting Director, Resource Conservation and Sustainability Division, U.S. EPA Office of
KURD ALI	ENDYNA
GEORGE WARD	NEJAC Administrative Support, U.S. Environmental Protection Agency (EPA)
NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL (NEJAC) MEMBER CHAIRS	
SYLVIA ORDUNO	NEJAC MEMBER CHAIR - EPA REGION 5
NA'TAKI OSBORNE JELKS, PhD	NEJAC MEMBER VICE-CHAIR - EPA REGION 4
MICHAEL TILCHIN	NEJAC MEMBER - VICE-CHAIR - EPA REGION 3
ACADEMIA (5) NEJAC MEMBERS	
APRIL KAREN BAPTISTE, PhD	NEJAC MEMBER - EPA REGION 2
JAN FRITZ, PhD, C.C.S.	NEJAC MEMBER - EPA REGION 5
BENJAMIN J. PAULI, PhD	NEJAC MEMBER - EPA REGION 5
SANDRA WHITEHEAD, PhD	NEJAC MEMBER - EPA REGION 3
SACOBY WILSON, PhD	NEJAC MEMBER - EPA REGION 3

COMMUNITY BASED ORGANIZATION	
CEMELLI DE AZTLAN	NEJAC MEMBER - EPA REGION 6
RICHARD MOORE	NEJAC MEMBER - EPA REGION 6
JEROME SHABAZZ	NEJAC MEMBER - EPA REGION 3
CHERYL JOHNSON	NEJAC MEMBER - EPA REGION 4
MILDRED MCCLAIN, PhD	NEJAC MEMBER - EPA REGION 4
PAMELA TALLEY	NEJAC MEMBER - EPA REGION 7
INDUSTRY/BUSINESS (4)	
VENU GHANTA	NEJAC MEMBER - EPA REGION 3
VIRGINIA KING	NEJAC MEMBER - EPA REGION 5
JABARI EDWARDS	NEJAC MEMBER - EPA REGION 4
NONGOVERNMENTAL/ENVIRONMENTAL GROUP (6)	
RITA HARRIS	NEJAC MEMBER - EPA REGION 4
AYAKO NAGANO, JD	NEJAC MEMBER - EPA REGION 9
JEREMY F. ORR, JD	NEJAC MEMBER - EPA REGION 5
JACQUELINE SHIRLEY	NEJAC MEMBER - EPA REGION 6
HERMILIA "MILY" TREVINO-SAUCEDA	NEJAC MEMBER - EPA REGION 9
TRIBAL/INDIGENOUS GOVERNMENTS AND ORGANIZATIONS (3)	
JOHN DOYLE	NEJAC MEMBER - EPA REGION 8
KELLY C. WRIGHT	NEJAC MEMBER - EPA REGION 10
JOY BRITT	NEJAC MEMBER - EPA REGION 10
STATE/LOCAL GOVERNMENT	
MELISSA MCGEE-COLLIER	NEJAC MEMBER - EPA REGION 4

MILLICENT PIAZZA	NEJAC MEMBER - EPA REGION 10
DENNIS RANDOLPH	NEJAC MEMBER - EPA REGION 5
KAREN SPRAYBERRY	NEJAC MEMBER - EPA REGION 4
ORAL PUBLIC COMMENTERS	
SYDNEY EVANS	ENVIRONMENTAL WORKING GROUP
LAKENDRA BARAJAS	EARTHJUSTICE
NAYYIRAH SHARIFF	FLINT RISING
STEPHANIE HERRON	EJHA
SHAINA OLIVER	MOMS CLEAN AIR FORCE AND ECOMADRES
HEATHER CROSHAW	ST. CROIX ENVIRONMENTAL ASSOCIATION (ST. CROIX USVI)
JOHN MUELLER	RETIRED ENGINEER
RACHAEL LEHMAN	1/70/VASQUEZ BLVD SUPERFUND CAG
REVEREND EDWARD PINKNEY	BENTON HARBOR COMMUNITY WATER COUNCIL

AGENDA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL VIRTUAL PUBLIC MEETING AGENDA

THURSDAY JUNE 17, 2021

1:00 P.M. – 7:30 P.M. EDT

1:00 p.m. - 1:30 p.m.	INTRODUCTIONS & OPENING REMARKS <ul style="list-style-type: none">o Karen L. Martin, Designated Federal Officer – U.S. EPAo Matthew Tejada, Director – U.S. EPA Office of Environmental Justiceo Sylvia Orduño, National Environmental Justice Advisory Council Chair – Michigan Welfare Rights Organizationo Na'Taki Osborne Jelks, National Environmental Justice Advisory Council Vice Chair – West Atlanta Watershed Alliance and Proctor Creek Stewardship Councilo Michael Tilchin, National Environmental Justice Advisory Council Vice Chair – Jacobs Engineering
1:30 p.m. - 2:30 p.m.	EPA NATIONAL RECYCLING STRATEGY <ul style="list-style-type: none">o Nena Shaw, Acting Director – Resource Conservation and Sustainability Division, U.S. EPA Office of Resource Conservation and Recovery
2:30 p.m. - 3:30 p.m.	NEJAC 100 DAYS LETTER DISCUSSION <ul style="list-style-type: none">o Sylvia Orduño, National Environmental Justice Advisory Council Chair – Michigan Welfare Rights Organizationo Michael Tilchin, National Environmental Justice Advisory Council Vice Chair – Jacobs Engineeringo Melissa McGee-Collier, National Environmental Justice Advisory Council Member – Mississippi Department of Environmental Qualityo Ayako Nagano, National Environmental Justice Advisory Council Member – Common Vision
3:30 p.m. – 3:45 p.m.	BREAK

3:45 p.m. – 5:30 p.m.	<p>PUBLIC COMMENT PERIOD</p> <ul style="list-style-type: none"> ○ <i>Members of the public will be given three (3) minutes to present comments on their issue or concern to the NEJAC.</i>
5:30 p.m. – 6:00 p.m.	<p>DINNER BREAK</p>
6:00 p.m. – 7:15 p.m.	<p>PUBLIC COMMENT PERIOD CONTINUATION/ NEJAC BUSINESS MEETING REFLECTION & CONVERSATION</p> <ul style="list-style-type: none"> ○ <i>The NEJAC will use this time to reflect on the meeting proceedings, public comment period, discuss and deliberate action items, and discuss new or emerging environmental justice issues across the United States and its territories. Additional time will be given to complete public comment period if needed.</i> ○ Workgroup Updates <ul style="list-style-type: none"> ● Farmworker Concerns and Pesticides ● PFAS/PFOA Issues ● Water Infrastructure Charge Update and Water Equity ● NEPA Roll Backs ● Community Air Quality ● Finance/Justice40
7:15 p.m. – 7:30 p.m.	<p>CLOSING REMARKS & ADJOURN</p> <ul style="list-style-type: none"> ○ <i>Sylvia Orduño, National Environmental Justice Advisory Council Chair – Michigan Welfare Rights Organization</i> ○ <i>Matthew Tejada, Director – U.S. EPA Office of Environmental Justice</i> ○ <i>Karen L. Martin, Designated Federal Officer – U.S. EPA</i>

PREFACE

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

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

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

EPA's Office of Environmental Justice (OEJ) maintains summary reports of all NEJAC meetings, which are available on the NEJAC web site at <https://www.epa.gov/environmentaljustice/national-environmental-justice-advisory-council-meetings>. Copies of materials distributed during NEJAC meetings are also available to the public upon request. Comments or questions can be directed via e-mail to NEJAC@epa.gov.

NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL
VIRTUAL PUBLIC MEETING
JUNE 17, 2021

MEETING SUMMARY

The National environmental Justice Advisory Council convened via Zoom meeting on Thursday, June 17, 2021. This summary covers NEJAC members' deliberations during the meeting and the discussions during the public comment period.

INTRODUCTIONS & OPENING REMARKS

Ms. Karen Martin, Outgoing Designated Federal Officer (DFO) for NEJAC, U.S. Environmental Protection Agency (EPA) welcomed everyone to the meeting. She announced that all meeting attendees are in listen and view only mode and only preregistered participants will be heard during the public comment period. She turned the meeting over to Mr. Matthew Tejada, the Office Director for the Office of Environmental Justice, to give opening remarks.

Mr. Matthew Tejada, Office Director, Office of Environmental Justice (OEJ), thanked everyone for taking the time to attend the NEJAC meeting. He stated that the NEJAC has been busy with work, meetings and convenings that harkens back to the days of the NEJAC in the early to mid-1990s. He thanked the members who have stepped up, along with individuals on the outside as well as inside of government and the EPA, for seizing the moment of advancing justice and equity across the United States.

Mr. Tejada offered some updates on items happening across the federal government. He stated that work was occurring on implementing the president's Executive Order 13985 on racial equity. He mentioned that EPA, like all other federal agencies and departments, is working at implementing that executive order, looking across everything that is done at EPA in terms of how contracts are issued, grant programs, policy making, data that's collected and used, and research and scientific enterprises. EPA is looking across everything, starting from a place of identifying barriers to figure out why business practices, programs and policies have not been

equitable in the past. Soon EPA will move onto coming up with solutions and activities to break through and overcome those barriers. He stated that it is a critical part of the Biden/Harris administration's acknowledgment that environmental justice and equity take a whole of government approach, not just EPA. He reiterated that this is what everyone across EPA, colleagues from the career staff as well as political leadership, very much wants and will be engaging with NEJAC in the coming weeks and months around thinking to identify barriers and solutions to barriers.

Mr. Tejada stated that the Council has come up in literally every part of the work with individuals wanting to engage with the NEJAC for expertise and recommendations. He stated that everyone has been very appreciative that NEJAC has spoken to many of the same issues for decades. He explained that NEJAC's reports have been more widely read in the past two months than they probably have been for the past decade. He stated that people are really looking at the reports, looking at what NEJAC has said previously, in order to start with a more precise, informative, nuanced conversation. He explained that this speaks to the commitment and the dedication of this administration and also to the relevancy of the NEJAC in this moment and throughout its history. He thanked the NEJAC for being that group that is continuing to carry the torch and speak out for environmental justice within EPA.

Mr. Tejada also explained that there was a lot of effort going on at EPA and across a lot of agencies and departments in terms of implementing Executive Order 14008, the executive order on tackling the climate crisis. He stated that the Justice40 Initiative is a huge part of that, ensuring that 40 percent of the resources of certain federal programs go to benefit disadvantaged communities. He noted that the work is not in place yet, but work is underway.

Mr. Tejada noted that the WHEJAC, the White House Environmental Justice Advisory Council, has also been doing a lot of work to provide thinking and advice and recommendations up to the Council on Environmental Quality which then filters out to agencies and departments working under CEQ's leadership to implement and think through the advice and recommendations from the WHEJAC. He stated that a lot of that work is still on going, as well as other parts of that executive order such as looking at the WHEJAC's recommendations on further revisions to Executive Order 12898.

Mr. Tejada announced that the president's budget came out a few weeks ago and the first full budget makes a significant investment in environmental justice priorities in other parts of EPA and across the board. He noted there was huge level of support for everything from cleanups to enforcement, both scientific research in the Office of Research and Development and scientific research potentially for OEJ to help lead the Office of Environmental Justice with the tremendous increase in the level of support in terms of grants and technical assistants that would be available for communities, for tribal governments, indigenous organizations, and also state and local government partners. He explained that this is critical in collaborating with the EPA and with local impacted communities on priority environmental justice issues. He encouraged the NEJAC to review the summaries of the president's budget which are available on EPA's website. He noted that the budget was in Congress to determine the FY'22 budget. He acknowledged that this is a completely new reality in terms of a proposed level of support for practicing environmental justice at EPA.

Mr. Tejada stated that the American Rescue Plan dedicated \$50 million specifically for environmental justice projects. He explained that the agency is close to being able to share the plans and ideas for the \$50 million and another \$50 million that went to the air program to work on air quality priorities. He explained that the agency is looking at the \$50 million as a start with hopes to continue to receive the levels of support that environmental justice requires and demands and deserves. He stated that it is a very exciting time for the EPA and the United States to work on environmental justice. He stated that everyone is looking forward to the NEJAC meetings and there will be leadership involvement in the August meeting. He stated that the focus will be to start working through the agenda items that have been in front of the NEJAC now for a few months.

Mr. Tejada also explained what happens when there is a lot of support and growth within a program like the environmental justice program. He stated that people move around and get elevated and are rewarded and acknowledged for their skills, hard work and intelligence. With that being said, he recognized Karen Martin for her tremendous skill and expertise in working with the NEJAC and announced that she will now be fully dedicated to the White House Environmental Justice Advisory Committee, WHEJAC. He also announced that Fred Jenkins

would be joining as the new DFO of the NEJAC committee. He stated that Fred Jenkins have worked with advisory committees in the past and was an EJ coordinator within the Office of Chemical Safety and Pollution Prevention. He reiterated that the bittersweet occurrence of wishing Karen Martin farewell and replacing her with a perfect solution in Fred Jenkins. The floor was turned to Ms. Sylvia Orduno for introductions.

Ms. Sylvia Orduno, NEJAC Chair, thanked Mr. Tejada for his report and praised him for always informing the NEJAC with a heads-up even when things are not necessarily confirmed. She stated that the NEJAC is trying to figure out how to manage the wealth of interest and the needs to participate in different spaces with the merger of thing at the federal, state, tribal and territorial levels. She stated that it is important for the NEJAC to understanding the administration's prioritizing to draw from the history of work of communities and organizations. She acknowledged the presence and expertise of the previous NEJAC chair, Richard Moore, who is now on the WHEJAC committee and veteran leader, Dr. McClain. She also expressed congratulations to Karen Martin and Fred Jenkins for their appointments as WHEJAC and NEJAC DFOs. She turned the meeting to the co-chairs, Dr. Na'Taki Osborne Jelks and Michael Tilchin for remarks.

Dr. Na'Taki Osborne Jelks, NEJAC Vice Chair, stated that she was excited about today's meeting and was looking forward to the public comment period and the recommendations discussion. She thanked the Council for all of their of hard work in light of the short timeline. She stated that she is looking forward to moving things forward, working in concert with many across EPA as EJ has been elevated in a different way than what has been seen in the past. She extended thanks to Karen Martin for the amazing work that she has done. She stated that her heart sank with the news or Karen's departure, but she recognized that there is no better person to take the reins to be the DFO for the WHEJAC. She stated that the NEJAC will figure out ways to come together and collaborate to deliver positive outcomes form the communities across the country. She turned the floor over to Mr. Michael Tilchin.

Mr. Michael Tilchin, NEJAC Vice Chair, stated that he was delighted to be with fellow councilmembers and members of the public. He stated that it is a remarkable time for the Council being greatly energized and equally challenged by what's ahead moving into the realm

of collaboration. He stated that it is exactly what the NEJAC had hoped for. He stated that the echo the feelings of the other councilmembers when he says it's a lot of effort and the members are ready for it.

He stated that the upcoming recycling strategy from EPA's RCRA Office will be a great presentation. He explained that the Hundred Day Letter links very closely to a major initiative going forward with the workgroups, working on very critical issues that are really gaining momentum. He noted most important is the input from the public which informs everything that is done. He echoed what has been said about Karen and her contributions to the NEJAC. He stated that as much as Karen will be missed, Fred will take great care of the NEJAC moving forward. He turned the meeting over for member introductions and all councilmembers introduced themselves.

Ms. Karen Martin, DFO, following introductions, announced that a quorum was met and it was okay to start the meeting. She turned the floor to Mr. Tejada to introduce the next speaker.

Mr. Matthew Tejada, OEJ, introduced Nena Shaw, the Acting Director of the Resource Conservation and Sustainability Division within the Resource Conservation and Recovery Office. He stated that this was one of the first requests of many being handed for engaging with the NEJAC and that Nena was first in line to share information regarding the National Recycling Strategy.

REQUEST TO NEJAC & BACKGROUND ON THE NATIONAL RECYCLING STRATEGY DOCUMENT

Request to NEJAC & Background on the *National Recycling Strategy* June 8, 2021

Overview: EPA developed the National Recycling Strategy (the Strategy) to identify key actions for improving the U.S. recycling system. The Strategy also provides a vision for reframing recycling within a larger circular economy that can have large positive impacts on climate change, jobs, public health, and environmental justice. Because recycling alone is not enough to achieve sufficient impacts in these areas, EPA will develop subsequent strategies to fully encompass the actions needed to create a circular economy for all.

Requests: EPA is seeking input from the NEJAC on the following questions:

- (1) Does the Strategy effectively address communities with environmental justice considerations? If not, what actions or additions would improve it?
- (2) How can EPA most effectively engage with stakeholders during implementation of the Strategy to ensure our actions to develop a circular economy are inclusive and benefit all Americans?
- (3) Are there specific organizations, groups you recommend we engage or approaches NEJAC recommends EPA undertake when implementing the Strategy?

Request Details: EPA is seeking verbal feedback during the June 17th NEJAC meeting on whether the Strategy addresses EJ considerations. We also appreciate NEJAC recommending stakeholders EPA should engage to inform the Strategy's implementation plan. Members may email contact names to EPARECYCLES@epa.gov by July 2nd.

Recycling Supports the Administration's Climate, Environmental Justice, Economic, and Public Health Objectives:

According to the International Resource Panel, natural resource extraction and processing activities account for approximately 50 percent of total global greenhouse gas (GHG) emissions¹ and global resource consumption has tripled over the past four decades.² Reducing emissions from the production, use, consumption, and disposal of materials can help countries meet the Paris Agreement 1.5°C target. The Ellen MacArthur Foundation found that applying circular economy strategies in five key areas (cement, aluminum, steel, plastics, and food) can achieve reductions in GHG emissions – 9.3 billion metric tons of carbon dioxide equivalent in 2050 globally – equivalent to cutting current emissions from all transport to zero.³

EPA will release the Strategy to focus on recycling as an important component of a circular economy and reflects input from industry, state and local governments, non-profits, and others. As defined in the Save our Seas Act 2.0, a "circular economy" refers to a system of economic activities that is restorative to the environment, enables resources to maintain their highest values, and aims for the elimination of waste through superior design.⁴ Recycling has already shown that it can achieve environmental, economic, and social benefits:

- In 2018, 32 percent of municipal solid waste was recycled or composted, preventing over 193 million metric tons of carbon dioxide equivalent from entering the atmosphere.
- U.S. recycling and reuse activities account for approximately 681,000 jobs, \$37.8 billion in wages, and \$5.5 billion in tax revenues (EPA's most recent data from 2012)

¹ IRP, 2019. Global Resources Outlook 2019: Natural Resources for the Future We Want. A Report of the International Resource Panel. United Nations Environment Programme. Nairobi, Kenya.

² UNEP, 2016. Global Material Flows and Resource Productivity. An Assessment Study of the UNEP International Resource Panel.

³ Ellen MacArthur Foundation and Material Economics, 2019. Completing the Picture: How the Circular Economy Tackles Climate Change.

⁴ Save our Seas 2.0, <https://www.congress.gov/bill/116th-congress/senate-bill/1982/text>

Request to NEJAC & Background on the *National Recycling Strategy*
June 8, 2021

The Strategy builds on decades of EPA's work on recycling. Challenges facing the U.S. recycling system include confusion about what and how to recycle, aging recycling infrastructure, and lack of sufficient markets for recyclable materials in part due to international trade barriers. In 2020, EPA announced the National Recycling Goal to increase the recycling rate to 50% by 2030 and released the draft National Recycling Strategy for public comment. The draft of the Strategy focused on consumer recycling, particularly those materials that were suffering from challenges posed by the recent collapse of international markets (i.e. paper and plastics). It contained three objectives: reduce contamination in the recycling stream, improve processing efficiency, and increase markets.

EPA has subsequently updated the Strategy based on the 156 public comment letters. Common themes among the commenters were to expand the Strategy beyond recycling to include other circular economy actions, incorporate equity and environmental justice, include increasing collection as an objective, and increasing the prominence of policies and measurement.

The Strategy now includes five objectives:

1. Improve markets for recycling commodities,
2. Increase collection and improve materials management infrastructure,
3. Reduce contamination in the recycled materials stream,
4. Enhance policies and programs to support circularity, and
5. Standardize measurement and increase data collection.

The circular economy approach within the Strategy also puts the United States on a course that is more coordinated with international initiatives, allowing EPA to better leverage international efforts to support U.S. objectives and to demonstrate leadership.

Twelve commenters provided input on how to better integrate equity and environmental justice into the Strategy. In response, EPA identified that all objectives and actions should be implemented with an environmental justice lens that ensures equity in the strategy outcomes. In addition, EPA enhanced language on increasing access to recycling facilities, which is often lacking in underserved and rural communities. The strategy now reflects that various educational messages are needed to be responsive to and inclusive of diverse communities. Lastly, the Strategy now reflects that when recovery facility and collection equipment is upgraded, considerations should be taken so that it is also safer and healthier for recovery facility and collection workers.

Next Steps:

EPA will develop and release an implementation plan to ensure that the actions in the strategy are carried out. Collaboration across the federal government and with external stakeholders is needed to achieve the ambitious objectives of the strategy. As recycling alone will not achieve the climate change emissions reductions needed, however, EPA is also committing to develop subsequent strategies that will identify actions needed in other areas (such as plastics, food waste, and construction) to achieve large GHG emissions reductions from materials production, use, consumption, and disposal.

EPA NATIONAL RECYCLING STRATEGY - NENA SHAW

Ms. Nena Shaw, Acting Director, Resource Conservation and Sustainability Division, U.S. EPA Office of Resource Conservation and Recovery, stated that these are exciting times not only for the NEJAC and the Agency, but really thinking about waste management and recycling in this country.

Ms. Shaw stated reflected back to 2017/2018 when the China Sword policy was put in place and the effort was put in motion where China basically stopped taking the trash. She explained that this did not cause the problems but did highlight some of the challenges of existing waste stream and waste management in the country. She stated that because of that, everybody started to recognize the need to take a look at what was being done. She stated that for the last several years recycling and mechanical recycling has been looked at, the things being recycled from homes into mechanical recycling facilities, the MRFs.

Ms. Shaw noted that in December 2020, there was a new piece of bipartisan legislation. She stated that in this area there had not been new legislation in a long time for the EPA. She stated that the important legislation was called Save Our Seas 2.0 Act, and, despite the name, it focused on post-consumer materials management and plastics. What was unique for the program is that it gave the authority to issue grants on recycling infrastructure which was really important. She stated that in addition, it allowed for reports and other things that needed to be done across the agency and the federal government. She stated that another thing that happened was that GAO came out with a report requesting work on the social cost of waste analysis, which is a study being undertaken. She stated that in addition, in January with the new administration came new priorities of climate, environmental justice, jobs, science, and public health, which needed to get added into the revision of the draft. She noted that in addition, there was language in the appropriations language asked for work in terms of more studies, more analysis date, et cetera, all of which is underpinning and underscoring the work that Save Our Seas and GAO requested. Ms. Shaw turned to discussing the President's budget. She stated that with the Save Our Seas 2.0 authority, the president requested \$10 million to fund a grant program that will look at solid

waste infrastructure. She noted that that is a lot in the domestic context, but there is also similar international conversations going on as well. She stated the interests and engagement is really underpinning the strategy to share with the NEJAC for feedback. She stated that this is just the beginning and a pathway forward with hope of engagement for the next ten years.

Ms. Shaw went over the request to the NEJAC, the scope and the purpose of the recycling strategy, the process of developing it, public comment highlights and examples of strategy actions and next steps. She stated that EPA is fortunate to have the NEJAC as consultants to inform whether the strategy address EJ considerations effectively, and, if not, what additional actions are needed. She also posed the question of who does EPA need to engage with going forward to ensure the different objectives are addressed and effectively engages the appropriate people in the appropriate places. She stated that this is the focus for today and to seek organizations that want to engage on the implementation plan.

Ms. Shaw also discussed the National Recycling Strategy and its importance. She stated that going forward, there is an opportunity to use materials as resources and rethink waste management. She noted that recycling is an important part of a circular economy. She stated that natural resource extraction and processing make up 50 percent of the total greenhouse gas emissions. She stated that this is a climate connection that is often overlooked in conversations about climate and greenhouse gas emissions, that fifty percent of it is coming from our materials. She stated that there has also been increased public and congressional attention on plastics in the environment. She noted that this has been a tremendous issue up to this point and was obviously what was the underpinning of Save Our Seas 2.0. She stated that there is more potential legislation coming behind and there are environmental justice concerns in countries to whom the U.S. exports plastics and the climate impacts of the increasing generation of single use plastics. She stated that plastics domestically, and internationally, is becoming a larger issue.

Ms. Shaw explained that recycling and reuse activities create over 680,000 jobs and that is an old estimate. She stated that it creates billions of dollars in wages and billions in tax revenues so it is an important sector of the economy. She noted that it is also known that there is inadequate infrastructure and systems place to deal with materials which pose a challenge for communities and local governments who manage materials.

Ms. Shaw went on to discuss the scope of the strategy. She stated that there is big focus on municipal solid waste recycling system which was the result of a couple of years' worth of national dialogues. She explained that it identifies some stakeholder-led actions to create a stronger, more resilient, less impactful, and more cost effective municipal solid waste recycling system, but it acknowledges that recycling alone cannot help to achieve a circular economy. She stated that EPA is working to develop additional strategies to include actions related to other materials, like food waste, and pathways, including material reuse and waste reduction. She reiterated that this is just the beginning.

Ms. Shaw discussed engagement in developing the strategy. She stated that from February through September of 2020, federal agencies and other members of the America Recycles Network were engaged, which is approximately 350 organizations strong to come up with a draft National Recycling Strategy. She stated that a 60-day public comment period was issued in October of 2020. She stated that in November 2020, a national recycling goal was announced to increase recycling rate to 50 percent by 2030 and currently sits at about 32 percent. She stated that in January through June of this year, there was a revised strategy based on public comments and the Biden administration priorities, thus EPA is coming to the NEJAC for feedback on incorporation of EJ in that strategy.

Ms. Shaw went on to discuss the public comments and mentioned that about 156 comments were received from a broad range of organizations, academia, federal government, industry trade groups, state governments, environmental organizations, tribal governments, and local and city governments, as well as industry. She noted that industry members represented the largest group along with trade groups. She stated that the comments were really broad and asked EPA to be even broader in the work. She stated that while the focus was initially on municipal solid waste and mechanical recycling, the comments received asked for a broader focus on the circular economy, reduction, reuse to make the material streams -that would include construction and demolition debris, textiles, food waste, and other issues. She stated that this was important for the broad feedback needed to go beyond what was initially started.

Ms. Shaw stated that there were environmental justice comments on the draft strategy with a lot of interest from the states. She stated that some comments were on environmental justice and

the health equity lens is needed in all of the decisions and should be reflected throughout strategy. She stated that access to recycling for underserved communities, including multifamily households and rural areas needs to be increased. She stated that multiple sets of recycling education and outreach messages that resonate with different groups should be developed. She stated that communities need to be empowered to determine which messages are most important for their local situations and cultures. She stated that how the recycling system is disproportionately affecting marginalized and overburdened communities should be assessed to provide funding for organizations working in those communities most detrimentally impacted by current facilities and waste infrastructure.

Ms. Shaw explained EJ and public health considerations. She stated that waste management facilities impact human health, ecosystem services, property values, aesthetic and recreational values, and land productivity. She stated that communities with environmental justice concerns shoulder the burden of disposal facilities and are most impacted by waste management issues. She noted that some U.S. waste is exported to countries for recycling, even though they are not able to manage those materials in an environmentally sound manner. She stated that US is not a part of the Basel Convention, but wastes are moving to those countries and there is no ability to do anything about it. She explained that there were three strategy objectives in the draft and it ended with five. She stated that the first three really are focused on recycling improving markets for recycled commodities without a market. She also mentioned increasing collection and improving materials management infrastructure. She also mentioned reducing contamination in the recycled materials stream so that the markets and the commodities are clean and of high value.

Ms. Shaw explained that the last two strategies are absolutely crucial, which is really thinking about the policies and programs to support circularity and thinking about standardizing measurement and increase data collection. She stated that without that, progress cannot be measured. These actions are just a minimum and is beyond just an EPA strategy. There will also be strategies that others will be better situated to do. She stated that in terms of creating market development toolkits for communities, community engagement will be initiated to introduce market development concepts to communities facing environmental justice concerns so that they can consider recycling markets as a potential redevelopment option.

In thinking about increase collection and improving materials management, Ms. Shaw stated that recycling infrastructure needs to be improved. Improvements to the recycling infrastructure should be done to ensure access to recycling is widespread, and then environmental justice is considered in the siting of new infrastructure. When recovery facility and collection equipment is upgraded, considerations should be taken so that the upgraded equipment is safer and healthier for recovery facility and collection workers.

Ms. Shaw noted that in terms of reducing contamination, messaging and educational materials should be developed about the importance and value of recycling. She stated that this needs to reach diverse audiences and should be translated into multiple languages and be 508 compliant. She stated that in reducing contamination, common recycling messages and a variety of educational messages are going to be needed to be responsive and reflective of diverse communities.

Ms. Shaw stated that the next steps are to get feedback from NEJAC on where they are with the strategy and noted that it will hopefully be released this summer. She stated that work should get started in terms of developing an implementation plan and a stakeholder engagement plan, thinking about existing and additional stakeholders across the value chain. She noted that this is only the beginning, but starting work early is important in any new administration. She closed her presentation and opened up for questions. Questions from council members were asked and answered.

Ms. Sylvia Orduno, NEJAC Chair explained that questions that did not get noted would be noted during the business meeting portion and the NEJAC members could draft a letter that summarizes all the various points to submit by July 2nd. Following a short break, Ms. Orduno moved into the next segment of the meeting, the 100 Day Letter.

[BREAK]

NEJAC 100 DAYS LETTER DRAFT FINAL DOCUMENT



Members:

Sylvia Marie Orduña,
Chair

Na'Taki Osborne
Jelks,
Vice-Chair

Michael Tilchin
Vice-Chair

April Baptiste, PhD
Joy Britt
Cemelli de Aztlan
John Doyle
Jabari O. Edwards
Jan Fritz, PhD
Venu Ghanra
Rita Harris
Cheryl Johnson
Virginia King
Mildred McClain
Melissa McGee-
Collier
Richard Moore
Ayako Nagano
Jeremy F. Orr
Pauli Benjamin
Millie Piazza
Dennis Randolph
Jerome Shabazz
Jacqueline Shirley
Karen Sprayberry
Pamela Talley
Hermila Trevino-
Sauceda
Sandra Whitehead, PhD
Sacoby Wilson, PhD
Kelly C. Wright

DRAFT NEJAC DOCUMENT

NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL

June 17, 2021

Administrator Michael Regan
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Subject: The National Environmental Justice Advisory Council's Recommendations and Calls to Action

Dear Administrator Regan:

The National Environmental Justice Advisory Council (NEJAC) has provided service and insight to EPA Administrator since NEJAC's establishment in 1993. NEJAC's mission is to provide independent advice to the EPA Administrator on broad, cross-cutting issues related to environmental justice, and impart a holistic awareness of the impacts that environmental regulations have on the residents of the United States; particularly among the nation's most vulnerable populations. By its charter, the NEJAC represents community organizations, non-governmental organizations, academia, indigenous peoples and tribal governments, state and local governments, and business and industry. Through providing the EPA administrators with advice and recommendations on issues of environmental justice, the NEJAC offers voices from frontline communities experiencing environmental injustice, ranging from the Black Belt of Alabama to the native villages of Alaska, and from the hills of Appalachia to the deserts of the Southwest.

As a multi-stakeholder advisory council, the NEJAC's five (5) primary objectives are to:

1. Integrate environmental justice considerations into Agency programs, policies, and activities.
2. Improve the environment or public health in communities disproportionately burdened by environmental harms and risks.
3. Address environmental justice by ensuring meaningful involvement¹ in EPA decision-making, building capacity in disproportionately burdened

¹ **Meaningful Involvement:** People have an opportunity to participate in decisions about activities that may affect their environment and/or health; The public's contribution can influence the regulatory agency's decision; Community concerns will be considered in the decision making process; Decision makers will seek out and facilitate the involvement of those potentially affected

A Federal Advisory Committee to the U.S. Environmental Protection Agency

communities, and promoting collaborative problem-solving for issues involving environmental justice.

4. Strengthen its partnerships with other governmental agencies, such as other Federal agencies and State, Tribal, or local governments, regarding environmental justice issues.
5. Enhance research and assessment approaches related to environmental justice.

We take seriously these responsibilities and accept our federal advisory role in the EPA with integrity and pride. Your firm commitment to environmental justice priorities offers a much needed and appreciated return to addressing disproportionate and cumulative health impacts in affected communities. The NEJAC is greatly encouraged by the commitments you are making to embrace its objectives as front and center of EPA's agenda, i.e., "a central driving factor" in all that EPA does, and we are prepared to help your administration make that commitment a reality.

We submit this letter as you reach the milestone of your first 100 days as the EPA Administrator, and seek your response to several matters of importance, as indicated in three (3) sections of this letter: (I) Unanswered or inadequate responses from the previous Administration to the NEJAC's letters and reports from 2017-2020; (II) Communication and collaboration improvements between the NEJAC and EPA leadership, and (III) A communication and collaboration request between the NEJAC and the WHEJAC. Across them you will find specific concerns, updates, and recommendations from the council as you set forth your Administration's priorities and practices.

Additionally, the NEJAC workgroups are currently researching and consulting on several priority issues that impact environmental justice communities. These priorities reflect nearly three years of extensive public engagement and discussions. We expect to provide updated reports and recommendations from the following six (6) working groups at the NEJAC's August 18-19, 2021 public meeting:

1. Farmworker Concerns and Pesticides
2. PFAS/PFOA Issues
3. Water Infrastructure Charge Update and Water Equity
4. NEPA Roll Backs
5. Community Air Quality
6. Finance/Justice40

The NEJAC truly appreciates your openness and responsiveness to the issues and concerns we raise, and we look forward to meaningful engagement with your administration. Please know that we are actively engaged in improving stakeholder education on environmental justice across public and private sectors in support of your objectives. Alongside with our colleagues in the Office of Environmental

A Federal Advisory Committee to the U.S. Environmental Protection Agency

Justice and in the WHEJAC, we are honored to provide leadership and service to the EPA to address environmental priorities and the needs of impacted residents throughout our national, tribal, and territorial communities.

THE NEJAC'S REQUESTS TO THE ADMINISTRATOR

As the EPA moves forward with a host of important and timely measures to enact the current Administration's initiatives and priorities, the NEJAC believes it is important to bring your attention to some outstanding matters of concern. First and foremost are 11 public letters and two reports that the Council submitted to previous EPA Administrators from 2017 to 2020, plus one report submitted in May 2021. They underscore important environmental justice concerns about EPA and federal changes to environmental protections, including: Toxicants and chemical policy rollbacks; Safe Drinking Water Act (SDWA) and Clean Water Act (CWA) violations; failed worker protections; inadequate youth engagement; deficient data mapping; the NEJAC's 2019 Water Infrastructure Report to the Office of Water's 2016 charge to the NEJAC; and the 2018 Report: Youth Perspectives on Climate Change. A summary of the communication is listed below in Section I, which the NEJAC is requesting that the EPA Administrator review and respond. Section II provides a set of NEJAC's requests to the EPA Administrator to improve the communication, coordination, and collaboration between the work of the Council and across the offices of the EPA. The letter concludes with a request in Section III to the Administrator for approval to collaborate with the WHEJAC on environmental justice initiatives.

Finally, we understand there are initiatives happening throughout the current EPA Administration that respond to the issues communicated in these three sections. The Council is eager to learn about them as we continue to engage across the Agency and look forward to your timely written responses.

Section I: Unanswered or inadequate responses from the previous Administration to the NEJAC's letters and reports from 2017-2020

Coordinated with NEJAC's ongoing work on priority issues, NEJAC's body of recent work includes eleven (11) NEJAC recommendation letters and three (3) reports submitted to the EPA administration dated from July 2017 to May 2021. In most cases, NEJAC received inadequate responses, or no response to these charges and letters. We request your review of these prior submittals from NEJAC, and provide NEJAC status updates, Agency positions, and/or Agency actions you will take in response to these issue letters and the recommendations those letters contain.

Brief summaries of the recommendation letters are included below, along with links to each letter or report.

1. July 31, 2017 - Letter to Administrator Scott Pruitt re: Flint, Michigan Drinking Water Contamination.
2. July 31, 2017 - Letter to Administrator Scott Pruitt re: Title VI of the Civil Rights Act of 1964.
3. July 31, 2017 - Letter to Administrator Scott Pruitt re: Address Toxic Exposures Found at Discount Retail Stores.
4. July 31, 2017 - Letter to Administrator Scott Pruitt re: Worker Protection Standard Regulation to Protect Farmworkers and Their Families from Toxic Pesticides.
5. July 31, 2018 - Report to Acting Administrator Andrew Wheeler re: Best Practices for Youth Engagement and Addressing Health Impacts of Climate Change.
6. December 18, 2018 - Letter to Acting Administrator Andrew Wheeler re: Halting Efforts to Rescind Portions of the Agricultural Worker Protection Standard and the Certification of Pesticide Applicators Rule.
7. March 1, 2019 - Report to Administrator Andrew Wheeler re: EPA's Role in Addressing the Urgent Water Infrastructure Needs of Environmental Justice Communities.
8. May 3, 2019 - Letter to Administrator Andrew Wheeler re: Recommendation to Preserve the Chemical Disaster Safety Rule.
9. May 3, 2019 - 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.
10. August 14, 2019 - Letter to Administrator Andrew Wheeler re: Recommendations to Strengthen the PFAS Action Plan.

11. August 14, 2019 - Letter to Administrator Andrew Wheeler re: National Environmental Policy Act (NEPA) and Environmental Justice.
12. August 14, 2019 - Letter to Administrator Andrew Wheeler re: Data Limitations on EPA Mapping Tools.
13. August 14, 2019 - Letter to Administrator Andrew Wheeler re: Recommendations for Promoting Environmental Regulation on Aboveground Storage Tanks.
14. May 6, 2021- Report to Administrator Michael Regan re: Superfund Remediation and Redevelopment for Environmental Justice Communities.

Summary of the NEJAC Recommendation Letters to the EPA Administrator dated July 2017 to May 2021 (as noted above):

1. [July 31, 2017 - Letter to Administrator Scott Pruitt re: Flint, Michigan Drinking Water Contamination](#)

- October 12, 2016: At its public meeting, a resident and grassroots organization leader of Flint presents a summary of the city's devastating lead water crisis and recommendations to the NEJAC for the EPA.
- [July 31, 2017](#): The NEJAC submits a letter of its concerns regarding the Flint, Michigan water crisis with recommendations toward solutions. Additionally, the council requests an interagency group to undertake key initiatives to ensure overburdened and underserved populations are free from adverse effects of contaminated or inaccessible water.
- August 21, 2020: The NEJAC Chair and council receive a letter from NEJAC member, Dr. Benjamin Pauli, on behalf of the Environmental Transformation Movement of Flint (ETMF) responding to the NEJAC's 2017 Flint water crisis letter to the Administrator.
- *Updated requests:*
 - Respond to the 2017 letter's list of recommendations and concerns.
 - Review the 2020 ETMF letter for updates and assessments regarding the NEJAC's 2017 letter to the Administrator.

- Consider what may be the wrong lessons about the Flint water crisis, i.e., where the EPA may be complicit in federal and state limited foci on infrastructure and testing, and less so on cumulative health impacts and other related contaminants and conditions.

2. [July 31, 2017 - Letter to Administrator Scott Pruitt re: Title VI of the Civil Rights Act of 1964](#)

In September 2016, the U.S. Commission on Civil Rights (USCCR) released its report: Environmental Justice – Examining the Environmental Protection Agency’s Compliance and Enforcement of Title VI and Executive Order 12898. Among the most alarming conclusions is that while many EJ communities have filed Title VI complaints with the EPA over many years, only two affirmative findings were made in 46 years. With this report and the communities that the Council represent in mind, the NEJAC believes the EPA must invest in a series of recommendations to address Title VI compliance concerns, including case backlogs, deadlines, and complainant involvement in settlements discussions.

3. [July 31, 2017 - Letter to Administrator Scott Pruitt re: Address Toxic Exposures Found At Discount Retail Stores](#)

Discount retail stores (commonly called “dollar stores”) are often the only source of affordable household products and food in many communities already impacted by environmental justice issues. NEJAC recommended that federal agencies take specific steps to help vulnerable environmental justice communities reduce toxic exposures from products sold in discount stores which disproportionately impact households that experience economic restrictions and limited market choices. Recommendations to reduce toxic exposure included the Safe Choice Program, and inclusion of the FDA, USDA, and DOJ in the examination of chemical food packaging, food insecurity, and civil rights enforcements.

4. [July 31, 2017 - Letter to Administrator Scott Pruitt re: Worker Protection Standard Regulation to Protect Farmworkers and Their Families from Toxic Pesticides](#)

The NEJAC found that there is an urgent need for information, training, and representation regarding pesticide hazards, protective measures, their rights, and employer responsibilities under the new Worker Protection Standard (WPS) rule. Among the most important provisions in the revised WPS is the requirement for annual training of farmworkers on a broader range of pesticide hazard protection,

including their rights to file pesticide safety complaints. The letter contained detailed recommendations on:

- The development of WPS educational materials and programs,
- Designated representative provision and other worker rights, and enforcement of WPS provisions and protections; and
- Recommendations regarding Exclusion Zones.

5. [July 31, 2018 - Report to Acting Administrator Andrew Wheeler re: Best Practices for Youth Engagement and Addressing Health Impacts of Climate Change](#)

The NEJAC's Youth Work Group, consisting of sixteen (16) young people and eight (8) Council members, responded to the EPA's 2015 charge with a report that presents important recommendations to mentor, train, and engage youth leaders in decision-making and capacity building, and by allocating adequate resources and implementing principles for their engagement in climate justice. The youth members employed various methodology to collect data and establish their findings in a set of recommendations that were presented to and wholly supported by the NEJAC. We believe the youth report deserves attention and response from the EPA Administration.

6. [December 18, 2018 - Letter to Acting Administrator Andrew Wheeler re: Efforts to Rescind Portions of the Agricultural Worker Protection Standard and the Certification of Pesticide Applicators Rule](#)

NEJAC strongly urged EPA to vigorously enforce the standards laid out in the current versions of the Worker Protection Standard and the Certification of Pesticide Applicators rule. These measures exist to protect vulnerable farmworkers and people living in rural, agricultural communities who need protection by the federal government in order to work safely. Further, the Council seeks protection for minor children under 18 as pesticide handlers and early entry workers. It is the duty of the Agency to ensure the health and safety of these vulnerable communities and workers, including appropriate workplace communication and information on pesticide exposure.

7. [March 1, 2019 - Report to Administrator Andrew Wheeler re: EPA's Role in Addressing the Urgent Water Infrastructure Needs of Environmental Justice Communities](#)

- October 13, 2016: The Water Infrastructure Charge is presented to the NEJAC by the EPA Office of Water at the council's public meeting.

- [March 1, 2019](#): The completed NEJAC report, which included participation from four members of the Environmental Financial Advisory Board, is sent to the EPA Administrator summarizing our recommendations and seeking the agency's response.
- [April 18, 2019](#): The EPA Administrator sent to the NEJAC Chair a letter acknowledging receipt of an appreciation for the National Environmental Justice Advisory Council's report titled *EPA's Role in Addressing the Urgent Water Infrastructure Needs of Environmental Justice Communities*.
- August, 2020: Office of Water leadership conveyed to the Office of Environmental Justice its enthusiasm to present on their actions related to the NEJAC water infrastructure report at the next in-person meeting of the NEJAC, including at least one matter they think is responsive to the recommendations. Additionally, they asked for the NEJAC's feedback on the report's most important recommendations to make sure they consider and speak to those things when they next meet with the council.
- October 7, 2020: Leadership from the Office of Water, Office of Wastewater, Office of Environmental Justice, and the NEJAC's water charge group met to discuss potential responses to the report. We learned from the Office of Water and Office of Wastewater they have draft documents that respond to aspects of the charge report which they would share. No follow up meeting was scheduled nor were documents forwarded to the OEJ or the NEJAC Chair that we are aware of.
- *Update*: While the NEJAC believes that all the recommendations are still relevant to some extent, there are four (4) principles that we see as the foundation for achieving our water goals within the report and more broadly.
 - **Government treats water as a human right**: This should remain at the top of the list as it is central to every other aspect of the work. If the EPA does not view water as something that every person should have as an absolute right, essentially every other goal becomes debatable.
 - **Be accountable, rebuild public confidence, and trust in regulations**: People don't trust regulations because they don't trust the regulators. It appears that government regulators are the responsible parties not enforcing the regulations that are required in

EJ communities, as indicated by data on water violations and enforcement. The water infrastructure charge report addresses the critical need for meaningful community engagement but an important part of this gap is ensuring that the EPA does its duty to step in when local or state regulators fail and/or lack the capacity to do so. EPA needs to fulfill its duty as federal regulator and ensure that environmental justice and other environmental protection responsibilities be carried out in a just and fair manner.

- **Prioritize issues in EJ communities:** We must start with prioritizing EJ communities in crisis because we know that without that firm prioritization, resources will continue to flow preferentially in the direction of economic and sociopolitical power, and EJ communities will continue to be left behind.
- **Recognize the impact of climate change:** In municipal systems, drinking water, wastewater, and stormwater infrastructure assessments, choices, and costs must consider how source water and waste systems are affected by changes to water quantity and quality from environmental pollutants, contaminants, and climate change. Additionally, rural communities that are affected by inadequate access to and quantities of drinking water sources must be incorporated into assessments and recommendations for mitigating housing, farming, cultural, and other life impacts due to climate change.

8. [May 3, 2019 - Letter to Administrator Andrew Wheeler re: Recommendation to Preserve the Chemical Disaster Safety Rule](#)

The NEJAC implored EPA to halt efforts to rescind, weaken, and further delay parts of the Chemical Disaster Rule (also known as the January 2017 Risk Management Program ["RMP"] Amendments). NEJAC believes that the Chemical Disaster Rule should be fully implemented and enforced. The safety improvements this rule contains are essential to protect the lives and well-being of fence-line communities, workers, and first responders.

- In addition, there were prior NEJAC letters addressing chemical disaster safety rules: [Letter from Elizabeth Yampierre, Chair, NEJAC, to EPA Administrator Lisa P. Jackson \(Mar. 14, 2012\)](#).

- [Letter from EPA Assistant Administrator Mathy Stanislaus to Ms. Margaret J. May, Vice Chairwoman, NEJAC at 1 \(Aug. 29, 2013\).](#)

9. [May 3, 2019 - 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](#)

NEJAC requested a response from the EPA on the following points:

1. Confirmation from EPA that it intends to continue using the best available science, including the 2016 IRIS value on Ethylene Oxide, consistent with its responsibility under the Clean Air Act and the agency's longstanding practice.
2. Additional information on EPA's planned efforts to reduce emissions of this chemical from each of the industrial sources that it has identified, including:
 - a. Miscellaneous Organic Chemical Manufacturing.
 - b. Polyether Polyols Production.
 - c. Synthetic Organic Chemical Manufacturing.
 - d. Commercial sterilizers.
 - e. Hospital Ethylene Oxide Sterilizers.
 - f. Ethylene Oxide production facilities.
3. The EPA to provide this information within the next 30 days to the NEJAC and to local community members in an accessible way, so that they can consider any federal, state, or local actions that may be appropriate.
4. The Administrator's obligation to take prompt regulatory action under the Clean Air Act that assures the emission reductions needed from all chemical manufacturing and other sources, to protect public health from exposure to Ethylene Oxide, together with other toxic pollutants.
5. The EPA propose and take notice-and-comment on strengthening its regulations for each of the above-listed source categories of hazardous air pollution, and any additional sources it identifies as sources that require review.

10. [August 14, 2019 - Letter to Administrator Andrew Wheeler re: Recommendations to Strengthen the PFAS Action Plan](#)

NEJAC asked that EPA expand its investigation and assessments of the environmental and health impacts of PFAS contamination, as detailed in the recommendation letter, to include more participation from impacted, frontline communities. Further, we request an update of the current Administration's efforts to address the national PFAS crisis since its most recent PFAS Action Plan; and the status of the "EPA Council on PFAS," particularly to remediate these dangerous, complex chemicals in drinking water and to develop national drinking water regulation for PFOA and PFOS.

11. [August 14, 2019 - Letter to Administrator Andrew Wheeler re: National Environmental Policy Act \(NEPA\) and Environmental Justice](#)

To strengthen the validity and integrity of environmental justice analysis and considerations in the NEPA process, this NEJAC letter identified several concerns and priority actions that need a closer look. Among them are concerns with inadequate economic impact analyses and the seeming selection of the least environmentally impactful alternatives by EPA analysts for environmental justice community benefits. The Council believes the EPA must raise both the quality and quantity of environmental justice analyses in the NEPA process so the impacts affecting EJ communities are front and center.

12. [August 14, 2019 - Letter to Administrator Andrew Wheeler re: Data Limitations on EPA Mapping Tools](#)

NEJAC has a continuing desire to make sure the communities we represent have the appropriate tools and resources needed to do their own due diligence so that they can continue to protect and improve their health and safety. Tools created by EPA for communities lack completeness depending on where the person resides. For example, the EJSCREEN and EnviroAtlas tools do not cover all the areas of the United States, its territories, or all federally recognized tribal lands; these resources have very limited data for those areas. These deficiencies place thousands of people who could utilize these tools at a severe disadvantage as they investigate surrounding industries or hazards being proposed within their communities. NEJAC recommended that EPA ensure that any tools developed and introduced are inclusive and available to all of our communities.

13. [August 14, 2019 - Letter to Administrator Andrew Wheeler re: Recommendations for Promoting Environmental Regulation on Aboveground Storage Tanks](#)

Over the past several years, various reports have included recommendations for creating and improving rules that govern the operation of ASTs beyond voluntary programs. The NEJAC cites several examples between 2005-2019 where AST incidents have endangered the public caused by facilities that choose not to “self-regulate.” In addition to the recommendations in this letter, the NEJAC reiterated specific courses of action in the 2015 NEJAC report, “Proposed Recommendations for Promoting Community Resilience in Environmental Justice Industrial Waterfront Areas,” and requested an update on the status of their implementation.

14. [May 6, 2021 - Report to Administrator Michael Regan re: Superfund Remediation and Redevelopment for Environmental Justice Communities](#)

In this recently submitted report, the NEJAC provides specific recommendations regarding changes to the Superfund program to ensure the meaningful involvement of impacted people in decisions that affect their lives and instill confidence in the EPA. The NEJAC notes that the Superfund program is underfunded, as best evidenced by the growing backlog of sites that are ready to be cleaned up, but the work to protect communities is slowed or delayed indefinitely due to insufficient program funding. Furthermore, while Superfund cleanups have focused on preventing future exposure to hazardous chemicals, the program has not considered the long-term impacts on community health and economic opportunities for communities with environmental justice concerns that have been impacted by Superfund sites. In May of 2021, NEJAC issued its report, *Superfund Remediation and Redevelopment for Communities with Environmental Justice Concerns*. That report includes an integrated and actionable set of strategies and recommendations that NEJAC believes will have a positive and transformative impact on EJ communities and the Superfund program.

Section II: Communication and collaboration improvements between the NEJAC and EPA leadership

The NEJAC is greatly encouraged by the commitments you are making to embrace its objectives as front and center in EPA’s agenda, i.e., “a central driving factor” in all the that EPA does, and we are prepared to help your administration make that commitment a reality through our federal advisory role. To effectively advise EPA on these issues, it is important that NEJAC be aware of what plans and actions EPA is currently pursuing that relate to these issues, and there be active engagement between the NEJAC work groups and the relevant program offices.

We know that not all Administrations have shared your commitment and the Council has experienced first-hand the deprioritization of its work in recent years. To create and maintain a highly effective working relationship, NEJAC proposes an

establishment of the following actions for effective communication, cooperation, and collaboration between the Council and the EPA Administration:

- The NEJAC welcomes and will extend invitations to the EPA Administrator and the EPA leadership team to all of its public meetings.
- The NEJAC will provide appropriate advance notice to the EPA Administrator as soon as meeting dates are determined to schedule availability to meet.
- The NEJAC will seek EPA staff and FACA member participation in its working groups.
- The NEJAC will provide the EPA Administrator with timely and well-consulted recommendations on matters of importance to the Council and among the priorities of the EPA Administrator.

In turn, the NEJAC requests:

- The EPA Administrator will attempt to attend a minimum of one NEJAC public meeting per year and ensure that at least one member of the Administrator's leadership team attend all NEJAC public meetings.
- The EPA leadership will demonstrate in NEJAC's public meetings its commitment to environmental justice and provide timely, first-hand information on issues facing environmental justice communities.
- The EPA Administrator will support the addition of EPA staff and FACA member participation in the Council's working groups, as needed.
- The EPA Administrator will respond in a timely and well-considered manner to the recommendations of the NEJAC and encourage EPA Offices to reflect the same.

With the EPA Administrator's support, the NEJAC believes a commitment to these objectives will ensure effective communication, prioritization, and outcomes for the benefit of environmental justice communities.

Section III: A communication and collaboration request between the NEJAC and the WHEJAC

The NEJAC is delighted with the formation of the White House Environmental Justice Advisory Council and enthusiastic about working with the WHEJAC to address and remedy the long standing and significant harm done to the nation's most vulnerable populations. The NEJAC envisions a strong synergy with WHEJAC through mutual cooperation and communication, the two councils can have a 'multiplier effect' in developing and promoting policies and actions that meaningfully improve the lives of environmental justice communities. Frequent communication and coordination between the two councils are essential to achieving combined goals and objectives.

The NEJAC strongly requests that the EPA Administrator recommend to the White House Council on Environmental Quality that coordinated work be undertaken by the WHEJAC and the NEJAC beginning with a meeting between the leadership of both councils. The purpose of the initial meeting will be to establish communication protocols, identify shared objectives, activities, and priorities; and develop processes for coordinated environmental and climate justice efficacy. To underscore its intentionality, the NEJAC has formed a Finance/Justice40 Working Group to complement the work of the WHEJAC's Justice40-driven reviews and recommendations. We believe this collaboration will enhance the work of both councils and facilitate the administration's objectives and timeline for environmental and climate justice outputs and outcomes.

Thank you for your review and consideration of this letter.

Sincerely,

Sylvia Marie Orduño
Chair

Attachment

cc: NEJAC Members
XXXXX XXXX, Administrator
XXXX XXXXXXX, Associate Administrator for the Office of Policy
Matthew Tejada, Director for the Office of Environmental Justice
Karen L. Martin, Designated Federal Office

NEJAC 100 DAYS LETTER DISCUSSION

Ms. Sylvia Orduno, NEJAC Chair, stated the segment thanking the 100 Day committee for helping to pull together feedback from different members of the Council. She asked Ms. Melissa McGee-Collier to lead the discussion.

Ms. Melissa McGee-Collier, NEJAC Member, stated that the letter was drafted because members of NEJAC understand and know that the first 100 days of EPA's new administrator, Administrator Michael Regan, are critical to mapping the course of the Agency, especially when it comes to the environmental justice initiatives and policies. She stated that the letter was written to communicate clearly that NEJAC has, will and must continue to play an essential role in any plan, policy and initiative for, any of the challenges faced by the communities, to move environmental justice forward. She stated that those challenges are many and can be air, water, hazardous waste, solid waste, brownfields, superfund, emergency response, climate change, and many more, including jobs and housing. She stated that NEJAC is a wholistic council and does not just focuses on one thing, but everything that has or could have a negative impact on communities. She explained that this particular letter goes beyond covering just the topics which have been raised or the concerns which have been raised by this current NEJAC committee. She stated that the letter includes reports and recommendations made by other NEJAC members over the various years. She explained that the intent of the letter is to bring to the forefront and raise awareness once again issues and recommendations that have already been presented and identified as concerns of the stakeholders or the represented communities.

Ms. Mc-Gee Collier stated that the letter serves a four-fold purpose. She explained that first was to remind EPA of the issues that NEJAC has already raised and made recommendations about. She stated that purpose number two is to inquire of EPA about any initiatives that they have taken to address the concerns and issues raised. She noted that the third purpose of the letter is to call upon EPA to respond to the Council's reports and recommendations that have been previously sent but did not receive a proper response. She noted that the last purpose of the letter is to assure. She explained it was to assure EPA that NEJAC is determined and unflinching in making sure that the health, safety and welfare of EJ communities, especially

people of color, is addressed. She note that the NEJAC wants to make sure that the focus is on conserving and improving the environment through focused research and responsible regulation. She stated that the is long with a meaningful purpose. She stated that the NEJAC is expecting a response from EPA and turned the floor back to Ms. Sylvia Orduno.

Ms. Sylvia Orduno, NEJAC Chair, thanked Melissa for the presentation and reiterated that there's a lot to make sure that the administration understands and respect about the work that is done. She stated that it is not just NEJAC's voice, but voices of the communities, stakeholder groups, and movements. She stated that it's important that the work is acknowledged, and a response is made as it has been unacceptable having no response in the past and turned the floor back to Melissa to go through specific letters and reports.

Ms. Melissa McGee-Collier, NEJAC Member. read the following from the slides: Some of the recently submitted reports and recommendations that we are addressing or pulling out or bringing to the forefront within this letter, the first one is dated July 31, 2017. It was regarding the Flint, Michigan drinking water contamination. The second thing that we are highlighting within the letter is the letter that we wrote to Scott Pruitt, which highlighted the Title VI of the Civil Rights Act of 1964. We also are highlighting within the 100 Day Letter the toxic exposures found at discount retail stores, places like Dollar General and not just to call out that particular store but those are the types of stores this letter addresses.

Also, the 100 Day Letter talks about worker protections, talking about protecting our farmworkers and their families from toxic pesticides. Also, the 100 Day Letter pulls to the forefront one of the reports that we submitted to Administrator Andrew Wheeler, which was talking about the best practices for youth engagement and addressing health impacts of climate change. Next slide.

The 100 Day Letter will also bring to the forefront a letter that was written to Acting Administrator Wheeler regarding advises against the effort to rescind portions of the Agricultural Worker Protection Standard and the Certification of Pesticide Applicator's Rule. Also, there was a report submitted to Administrator Wheeler regarding EPA's role in addressing the urgent water infrastructure needs of environmental justice communities. We also wrote

letters to former administrator Andrew Wheeler regarding recommendation to preserve the Chemical Disaster Safety Rule. An additional letter to former administrator Wheeler was regarding recommendations 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.

Another letter to former administrator Wheeler was regarding recommendations to strengthen the PFAS Action Plan. Again, a letter to Administrator Wheeler had to do with National Environmental Policy Act (NEPA) and Environmental Justice. Another letter was data limitations on EPA mapping tools. Another letter again to former administrator Wheeler was recommendations for promoting environmental regulation on aboveground storage tanks. In May of this year, we sent a report to Administrator Michael Regan regarding superfund remediation and redevelopment of environmental justice communities.

Those are the reports and letters that we have submitted to previous administrators as well as EPA's current administrator and so those are the things that have been highlighted in the 100 Day Letter and it means that expect to receive responses on. Sylvia.

Ms. Sylvia Orduno, NEJAC Chair, invited the Council to give any additional feedback on points that may have been missed or anything that may need to be reframed. She stated that if the Council concur, there would be a vote on accepting the letter. She stated that if there were minor changes the hope is to continue to move forward with accepting the letter and making those changes. She stated that if there were significant changes the letter would have to be revisited. She turned to the Council for comments.

Ms. Orduno entertained questions and comments from the Council and moved to approving the 100-Day Letter. She stated that it has been flagged with one omission to be included regarding the monitoring of the report around poor air quality. She stated that specifically the issues of cumulative impacts should also be noted. She stated that those would be added. She asked if the Council was comfortable with the approach of including the two additions that were missed while moving forward with approving the 100 Day Letter. The Council voted and was in favor of approving the letter and moving it forward with the two additions to be added.

She thanked the Council for the work in getting the letter done. She stated that the anticipation is to have a response from the administration by the August meeting.

ORAL PUBLIC COMMENT PERIOD

Ms. Karen Martin, DFO, opened the Public Comment Period welcoming everyone back from the break. She stated that only participants that preregistered will be able to make oral public comments. She noted that the deadline for preregistration was June 10 at 11:59 p.m. She stated that written public comments will be accepted through July 1st. She noted that those written comments can be submitted using the Webform located at:

<https://www.epa.gov/environmentaljustice/forms/national-environmental-justice-advisory-council-nejac-public-comment> or can be sent to nejac@epa.gov. She stated that each public commenter will have three minutes to speak.

Ms. Sydney Evans, Public Commenter: Great. Thank you for the opportunity to provide public comments at today's meeting. My name is Sydney Evans, and I'm a science analyst for the research and advocacy organization Environmental Working Group. We're a national environmental health nonprofit with offices in Washington, D.C., Minnesota, and California. EWG has been researching drinking water contaminants and advocating for a better drinking water quality in the U.S. for decades. Today, we wanted to voice our support for the Council and emphasize a focus on the intersection of environmental justice and drinking water quality that's a concern in communities across the country.

Everyone should have access to affordable and safe drinking water in the U.S. regardless of the community where they live. The drinking water contamination and accessibility problems are exacerbated in rural areas, lower income localities, and communities of color. There's a vast gap even for most regulated contaminants between what's legally allowed in drinking water and

what's protective of sensitive populations like pregnant women and children.

The most immediate solution for any family is to invest in a home water filter, but this is simply a band aid on a bigger problem. Relying on home filtration to solve water quality issues increases the disparity in affected communities where those who cannot afford home water filters end up with lower quality drinking water than those who can. Safe water has become a privilege when it should be a right.

EWG's mission is empower consumers to take civic action, but how do you apply pressure to companies and organizations at fault for the pollution of our drinking water? For food, you can buy organic. For personal care products, you can choose clean beauty, but what do we do about tap water. Community and national solutions are necessary to improve water quality equitably across the United States. EWG wants to voice its support for these focus workgroups, especially NEJAC's work to identify barriers to environmental equity.

EWG urges the Council to continue considering equity and access to resources in their guidance to EPA. This will ensure that the communities most in need receive the support they need to decrease disparity in drinking water quality between them with communities across the U.S. We recognize the Council's important work on ongoing initiatives to this end. Thank you.

Dr. Sacoby Wilson, NEJAC Member: I just want to say quickly for those comments. I want to make a couple of quick comments and then have you respond back with some -- dig into those recommendations of what do you want us to do as NEJAC. Well, one of the things I want to say, I agree with you about drinking water quality and drinking water quality as it relates to those who have publicly available drinking water infrastructure that may be failing and then those who have never gotten access to drinking water infrastructure, particularly not rural areas, migrant worker camps, lots of the South. So I think there's a need to address with failing infrastructure and those who have been basically really unserved by drinking water infrastructure which is a major, major EJ issue, the lack of basic amenities. I'm going to shout out to my mentor Omega Wilson (phonetic) about that whole lack of basic amenities and the human right to drinking water. So I just wanted to say that but can you just dig in a little bit more, like what do you want NEJAC to do as it pertains to helping the EPA address drinking

water disparities?

Ms. Sydney Evans, Public Commenter: Absolutely. I wholeheartedly agree with that comment the difference between those who are served by wells and those who are on the water systems. My work specifically, primarily focuses on those with community water systems. So we're hoping that with this new administration, there's a really big opportunity for the investment in infrastructure. What we see a lot of the times is the systems that need the most help are the ones that don't have resources. So it's the small systems, the rural systems and just to -- if NEJAC could use the resources that they have to encourage EPA to consider those and increase the funding to those systems that need it most to start working on those issues and make sure that those communities have the resources because that's where we start seeing the biggest disparities.

Ms. Sylvia Orduno, NEJAC Chair: Thank you. Thanks, Michael. Thanks, Sydney. And so I wanted to obviously echo what Dr. Wilson was saying, but I also want to ask you if you can help with maybe some of the recommendations around how it is that as we're having a lot of these conversations around lead service lines across the country and the responsibility of our municipal or centralized water systems to provide adequate filtration while the lead service line work is being done or even with a lot of the main and sewer lines that are being replaced. There's not enough sort of communication with residents about how it is that they can now be at risk for greater exposure to lead and even a lot of sort of inadequate public information that's been given to residence about to use a proper filters, when they have to change their filters as this work is ongoing. That even, while it's maybe completed on one block, the system is all interactive, and so residents have to be worried for a long time.

So I wanted to know if like you're doing anything or you have seen any good examples of where public education can be done around that, especially for the utilities. And then sort of related to what you were noting there, Dr. Wilson, about rural communities as I know that I've even heard of one representative in particular that represents rural parts of Michigan say that she thinks her residents just mostly need to get reverse osmosis systems. You can't sort of require or rely upon the utility or anyone willing to provide the kind of safe drinking water that you can in many ways, it's just not feasible or economically possible.

So there's sort of burden on rural communities to also figure out their water quality issues on their own which is not acceptable also. So I was wondering if maybe you can just give us a little bit more feedback around that, Sydney.

Ms. Sydney Evans, Public Commenter: Yeah, so I think to your first point about communication, that's something that we have an organization that have been trying to do for a really long time and I think one of the not easiest, but maybe most obviously ways to better educate people is something that we've been trying to do which is using our EWG tap water database. So although public water systems have to publish annual water quality reports, a lot of those reports are just really hard to read and for a lot of people, they're probably just not that interesting. When you see these giant grids of numbers, giant walls of texts, and so what we've tried to do is take that same information and put it in a way that's much more palatable and educational and also realistic. One of the big things that we push for is making people understand that legal limits of contaminants are not necessarily safe levels of contaminants and just educating on that topic so that people know what they can do to protect themselves.

That does get into what I mentioned and what you were just talking about is how that burden suddenly starts falling on the individuals, those who maybe can or cannot -- or maybe they aren't in a position to take the action they need to protect themselves immediately. That's why we need those bigger solutions. One option with this, lead is kind of weirdly regulated because it can vary so much just from house to house even within a single system because of those lead pipelines. So just making that testing more widely available because, a lot of times, utilities don't even know where the lead service lines are, so knocking those out would be probably very helpful on a system-level basis also just wide-spread testing at the utility level for more contaminants.

I think everybody here probably knows about the PFAS and what an issued that has been, and the more we that we test for it, the more that's revealed yet it's still not widely tested for. It's not required even though we likely have it in all of our drinking water supplies, and it can have health effects at very low levels. I would recommend, if you're interested, checking out our EWG tap water database for the way that we think that might be more accessible to explain

quality to people. And then also starting to push for increased testing for some of these contaminants that aren't well monitored and regulated at the moment.

Ms. Jacqueline Shirley, NEJAC Member: I have a question not directed to the speaker but to the EJ staff here. Now, because there are almost ten -- well, if we include the seven billion water infrastructure builders -- 11 bills in hearing now, has the EJ office kind of monitor these bills and see how they're going and testify? Because there's a lot of bills that are on the table now that are addressing these specific issues that are public commenter made. Thank you.

Mr. Michael Tilchin, NEJAC Vice Chair: Right. So that's a question to all panelists. If someone has insight or other EPA staff or, Sydney, perhaps you have an answer to this to Jacqueline's question regarding tracking of current bills?

Ms. Karen Martin, DFO: Hi. This is Karen, so I'll just make a quick comment. I don't have a direct answer but in the Office of Environmental Justice, we are engaged in paying attention to what's going on with a lot of these bills specifically for the ones that address environmental justice. Even with Matt mentioned earlier in his comments about the current budget proposal, we do track that information. We do have a pretty good relationship with the Office of Water, so we are in continuing with discussions with them. They're actually going to be a big part of some of these work groups that we're setting to work on some of these issues.

Mr. Michael Tilchin, NEJAC Vice Chair: Very good. Thank you, Karen. Are there any other questions for Sydney from NEJAC members? Looks like I'm just going to touch on the last comment that Sydney made just to make sure we captured. What can NEJAC do? A couple of additional points that you made there that I think were excellent, Sydney, is that the way in which water quality data are presented to the public makes them much less than accessible, and that's clearly something that can be worked on about the limitations of what we test for. So thank you very much. With that, I think we're ready for our next public comment.

Ms. Lakendra Barajas, Public Commenter: Okay. Great. Hello. My name's Lakendra Barajas, and I'm an associate attorney at Earthjustice. I'd like to thank the NEJAC for the opportunity to speak today. I'm here today to voice concerns about the implementation of the Toxic Substances

Control Act or TSCA and the effect this can have on chemically overburdened communities.

TSCA requires EPA to protect communities overburdened by exposure to dangerous chemicals when evaluating chemical risk. Given the role of this body as an advisory council to EPA, I specifically ask this council today to bolster protections for chemically overburdened communities and two key ways.

First, I urge this council to bridge the Office of Chemical Safety and Pollution Prevention to take a broad approach to how the Agency defines potentially exposed and susceptible subpopulations under TSCA, to reevaluate its definition of fence line communities in consultation with the NEJAC and other environmental justice groups, and conduct separate analyses to determine if the evaluated chemical pose unreasonable risk to communities.

The risk evaluation process has three steps. Step one prioritization where EPA chooses batches of high-priority chemicals. Step two risk evaluation during which EPA comprehensively evaluates a chemical's exposures and risks and determines whether the chemical substance presents or will present an unreasonable risk of injury without consideration of cost. The final step, risk management, which requires EPA to impose restrictions to eliminate unreasonable risk.

The previous administration unlawfully excluded from the first 10 risk evaluations all consideration of the facility surrounding where the evaluated chemicals are manufactured, used, or released. To its credit, the current administration has expressed its intent to reconsider that exclusion and to evaluate risk to impacted communities. However, recent statements made by EPA raise questions about the scope of these new analyses and whether they too will fall short of pass those recommendations. This is particularly concerning because communities living near polluting facilities are frequently communities of color.

I'm urging the NEJAC to issue a statement urging the EPA to adhere to the mandates within TSCA and consider communities like those in Texas and Louisiana gulf as potentially exposed and susceptible subpopulations. I also suggest that the NEJAC form an internal TSCA working group to ensure constant communication with EPA and provide opportunities for strategic implementation of environmental justice through all stages of the risk evaluation process. Thank

you.

Dr. Sacoby Wilson, NEJAC Member: Thank you, Lakendra. I wanted just to comment on your comments. I think you make a powerful statement about that exclusion. I mean, how weak would TSCA be if you're not looking at the fence line communities? What's the point, y'all? I mean, y'all heard me make statements. I'm going to say it again; if you have a weakened law like this with that exclusion, that's basically continuation of state-sanctioned poisoning of communities of color. That's what it is. So, if you think about that structurally the mechanics of what you just said, if you're not looking at cumulative impacts of what's already there, then you really put 99 percent hole in that law. It makes it basically useless when it comes to the piece we're talking about.

Now, I also want to -- I think the language in TSCA's problematic, and this is maybe semantics when it comes to language. We talk about susceptible populations. The depth of susceptibility -- I'm not sure how it's been interpreted or has been conflated with vulnerability in TSCA -- is really about what's intrinsic: age, genetics, genetic predisposition, family history, the immunocompromised. Now, those are probably just as important. Vulnerability, when you think about fence line, you speak to the arrogant cumulative because you're near the fence line. You could have one facility, but you could be at the fence line of multiple facilities that gets you to the cumulative impact. So it gets that geographic vulnerability, right. It gets at the spatial injustice. I'll use that language right.

So I agree with you and let's send this to the Council. There's some problems in the current version of TSCA that really we have to tackle because TSCA's been problematic over the years. I think that exclusion and that pulling out that cumulative impacts part and not really looking at proximity when it comes to fence line and the way that really gets at that chemical overburdened communities, it becomes more problematic. So I'm going to stop talking, but I appreciate the comments. I heard the recommendations, and I'll stop talking so Richard can go ahead and chime in.

Mr. Richard Moore, NEJAC Member: Yeah, I just wanted to thank you for that testimony. I think another very important point that you brought up was grassroots community involvement.

That's very crucial because we know through the history of the TSCA that in some cases there was community engagement with the EPA, but, at the final day, much of those grassroots recommendations that were made around TSCA were lifted out. So I just wanted to thank you for that, for flagging those issues, but at the same time, to make sure in your recommendations that we lift up the input from grassroots environmental justice organizations. Thank you, miss.

Ms. Nayyirah Shariff, Public Commenter: Thank you. First of all, before I just wanted to put a correction with my state. I'm actually from Michigan. I noticed when I filled it out, I accidentally put Alabama, so I wish that could be corrected. I don't know how those notes are prepared, but I just wanted to offer that as a slight revision.

I live in Flint, Michigan, and I am the director of Flint Rising. Also, I've been part of a crisis volunteer workgroup called the Flint Water Crisis Communication Group. It's been a multisector network that was formed in the early days of the water crisis. It was really developed to disseminate this into that we were receiving to hard-to-reach groups and Flint residents. So this group has been working really now for almost seven years. We're still trying to gain information.

Because the city is still in crisis as we're regaining our democracy and trying to make sure that we have accurate information, one of the things that has happened is we have not really had a good track record with the EPA. We want to have a technical assistance advisor to really explain some of these question that we have.

There was a letter sent to a bunch of people from EPA Region 5: Alan Watts, who is the Tribal Multimedia Programs Office director from the Office of the Regional Administrator; Jess Kelly, the EPA Region 5 Office of External Communications director from the Office of Regional Administrator; Michael Harris, EPA Region 5 Enforcement Crisis Division director; and Tera Fong, who is the U.S. EPA Region 5 Water Division director. We have several questions for the EPA, a lot around -- we wanted to have someone coming to the meeting to give a report on the corrosion control study. We have questions around orthophosphates because a lot of this is like proprietary.

We want to know what the impact that has on what the corrosion index is and how that changes. We want more information around the study to be explained, and what's being currently used to keep pH levels up. So that's just one of many questions that we have, and we'd really like some assistance for us to get technical assistance to come to Flint as part of the broader conversation of our reparations and making sure our community becomes whole after this crisis. Thank you.

Mr. Michael Tilchin, NEJAC Vice Chair: Thank you, Nayyirah. Before turning to other panelists, as I understand it, these letters have been submitted to multiple people for Region 5 and are targeted very appropriately it sounds like. You may have said this, and I may have missed it. Is there a specific action you would like the Council to consider?

Ms. Nayyirah Shariff, Public Commenter: I will say assistance in navigating for us to get technical assistance right now from the EPA, like someone dedicated from the EPA office to come to our meetings and kind of provide feedback on some of these in explaining some of these reports that have come out that are extremely technical and somewhat difficult for ordinary residents to disseminate and dive into.

Mr. Michael Tilchin, NEJAC Vice Chair: That's exactly what I was -- and you did say that. I just wasn't listening carefully enough. Thank you very much. Council members, any questions for -- by the way, we will absolutely fix your geography so don't worry about that. Any question for Nayyirah? Dr. Pauli.

Dr. Ben Pauli, NEJAC Member: Thank you, Mike, and thank you, Nayyirah, for those comments. I think it's important to point out that back in 2016, when the water crisis was getting a lot of headlines, there were a lot of people from the EPA and other federal agencies here on the ground providing technical support among other things. But in early 2017, the vast majority of those folks kind of pulled out, and, ever since then, communication has been pretty spotty as well as just support for community members who are continuing to work on these issues and raise concerns.

I know that one of the objectives of our water infrastructure subcommittee is to follow up on Flint, including on the letter that NEJAC authored asking a report out on the water crisis and the

EPA's role in responding to it. One of the things that I would like to see is that any kind of report that we do get on Flint not just be a list of all of the things that EPA has already done and already accomplished, that really be sensitive to the fact that there are some real ongoing needs within the community and that community members are making some very specific asks for assistance. I think that what we need to know in Flint is how is the EPA going to respond to those specific asks. So I think it's really important that we hear from folks like Nayyirah who are on the ground here working on these issues day in and day out.

Sometimes we think that folks outside of Flint is sort of ancient history at this point, but it's important to remember that it's still very much part of the lived experience of a lot of people every day. There are issues that still need to be solved that people are working really hard on and need support in dealing with. So this is really concrete illustration of what that looks like.

I think there's also a probably a more general point to be made here about the way in which communities that are facing water quality issues and have questions and concerns, how do they obtain technical help from the EPA if they're Flint and they're not in the headlines and they don't have the spotlight shining on them. I mean, Flint is in some ways lucky enough that at least to be on NEJAC's agenda, but a lot of communities that have similar needs aren't. I do hope that we will follow up specifically and help to facilitate the communication workgroup, getting the kind of assistance that it's asking for, but I also hope that we'll be thinking about that broader issue as well and what NEJAC can do about it. Thank you again, Nayyirah.

Mr. Jeremy Orr, NEJAC Member: Thanks, Mike. I think following up on one, Nayyirah, thanks for joining and lifting this issue up as a follow resident of Region 5 along with you and Sylvia in Michigan in particular. I think it's been mentioned that there's a very concrete ask that seems like we should be able to help with to move along and foster. Oftentimes, we ask that after public comments is what's the ask? I think the ask here was very clear.

I think the other piece which Nayyirah mentioned is she's in a community that's, as she put it, regaining democracy. I think when we think about how the people of Flint were wronged and we think about how they were failed not only locally and at the state but also at the regional EPA level as well, I think we need to think about how do we continue to remedy those harms also but

also rebuild trust? I know we talked about in our water charge in the 100 Days letter is one of the priorities should be for us to continue to meaningfully engage people and rebuild trust, rebuild relationships.

One of the ways we can do that is actually by showing up, responding to people's calls and, when it's within our purview, to provide the support where we can. I'm thinking of what Nayyirah mentioned in asking for something very concrete, something very doable, and something I would think EPA would be able to respond to in a meaningful way. I just wanted to put that out there and thank Nayyirah for lifting up this issue.

Ms. Karen Sprayberry, NEJAC Member: I took it down once you said my name. I'm sorry. You know, everything that you just mentioned would be addressed under the EPA's collaborative problem solving model method. So I just wonder why that's not being used for this community because it's bringing together various stakeholders and that's when you're educating folks on the issues which also identify the concerns and working together and negotiating, mediating to address those concerns. So why is that not being used as a method? Because, Ms. Rita, you've been through it before, haven't you? I just feel like it's a cycle that keeps spinning and it just seems like it's not getting address. Thank you.

Ms. Sylvia Orduno, NEJAC Chair: Yeah, thank you so much, Nayyirah, always. You're an incredible fighter in leading a strong community of folks that are still fighting for their lives. I also like the way that you talked about this in terms of Flint reparations. I think that one of the challenges -- and this gets back to what I think Karen Sprayberry, you were just saying -- is that the technical needs are one part of the problem, as Nayyirah's expressing the need for help around. But then there is still the ongoing capacity problems of even what is maybe considered to be a medium large city like Flint.

If we look back at all what it took to get the attention for the Flint residents that they deserve around the drinking water, just having the potable drinking water for one, right, but then all of the lead service line replacements, household plumbing problems that folks are still dealing with, all the health impacts, all of the multiagency sort of needs that there needed to be some sort of help to help coordinate so this isn't the responsibility of impacted people to figure out. There

still is a lack of coordination. Even if we look at how it was that Congress finally agreed to provide initial funding to get these lead service lines out and provide for potable drinking water, then there has also been a series of lawsuits to force the rights the residents have to the type of remediation that they needed.

So even if we're saying, well, not all communities have had it as bad as Flint; it wasn't every single household, it shows again what it is that residents are up against in just one utility, right, their drinking water, sanitation utility. So the battles are very hard at the local level for residents that don't control the system whose democracy's been removed, where the voices of impact to residents are minimized and marginalized.

So then on top of it, when you're saying, well, why can't folks just get some kind of technical assistance branch, or why can't people participate in even the EJ grant program? That is still a beast for many communities to get through that grants.gov, the sam.gov (phonetic) application before you even get a chance to tell the story about the kind of funding you need for your community. There still isn't that kind of technical grant writing support that maybe EPA could lend or have some kind of partnership with other groups that can help with that kind of basic grant writing capacity development so that groups can sort of take advantage of opportunities that might be there.

Even with all these new funding streams, the people are saying, hey, they are available to EJ communities. There still are a lot of barriers, and I think that again, the Flint example provides ways for us to keep asking those question about why is it still so hard for Flint? If it's hard there still, what does that mean again for so many other communities that we're not hearing from that are trying to manage all of these problems around lead and drinking water. I think that there's more to the questions that we need to be talking about, and I'm hoping that this is part of the updates and new issues that we're going to be raising through the working group.

Ms. Stephanie Herron, Public Commenter: My name is Stephanie Herron. I'm the national organizer for the Environment Justice Health Alliance for Chemical Policy Reform. EJHA is a national network of EJ organizations that have been working to prevent and deal with chemical disasters in their communities for many years, some of them even before I was born.

Yesterday, I joined many others at the first of two EPA listening sessions regarding their risk management program, or RMP, to tell EPA that, if they want to prioritize environmental justice as the administrator and president have said, then they must prioritize protecting workers and fence line communities by issuing a truly protective chemical disaster prevention rule on the fastest timeline possible.

I'm here today to ask NEJAC to join in that call by writing a letter to the administrator and to the EPA Office of Land and Emergency Management calling on them to issue a strong risk management plan rule to protect fence line communities on the fastest timeline possible. It's 2021 and we know that people of color are not clustered in certain communities together by accident and neither are polluting facilities. The legacy of segregation and systemic racism run deep in this country and are presented in where RMP facilities are located like so many other things.

The "Life at the Fenceline" report showed that residents living within three miles of RMP facilities are disproportionately black and Latino. These communities also tend to be located in areas that are in increase climate vulnerability as we've seen with Hurricane Harvey, Hurricane Laura, and so many others. We need an RMP rule that addresses this risk by requiring facilities to assess and take action to actually address the increased risk of disasters caused by extreme weather, which is only going to get worse due to climate change.

Some other examples of what a strong rule would look like to me are one that addresses the cumulative hazard to communities located near multiple facilities and prioritizes communities with other environmental justice concerns, taking a hazard reduction approach rather than just an incident reduction approach as historically been the case, requiring facilities to assess safer alternatives and then requiring them to go with the less dangerous chemical or process wherever possible, strengthening worker involvement in risk management planning, expanding the program to include more dangerous facilities and chemicals like the one that just a couple of days ago exploded in Rockton, Illinois or the one near the community of Mossville, Louisiana in Lake Charles where a biolab facility after Hurricane Laura was on fire for three days releasing toxic smoke and chemicals, requiring fence line monitoring is key.

Fence line monitoring could help warn facilities of a major disaster before it happens, and it could help communities know what they're being exposed to when it does happen. Basically, we need EPA to issue a rule that acknowledges the world we actually live in and the real risk EJ communities face. Our communities don't have the luxury not to live next to these facilities. We don't have the luxury not live in a change in climate. We live in the real world, and that world is putting our people in danger every day. We need a rule that finally for the first time acknowledges those risks. We're counting on EPA to do what the reality and the moment demand.

Again, I'm asking NEJAC to partner with us in this effort by issuing a recommendation letter to EPA. Like our EJHA affiliates, NEJAC has a long history of working toward stronger chemical disaster prevention, and I've submitted this comment to the emails address provided along with NEJAC letters on the RMP and chemical disaster prevention from both 2012 and 2019 as well as the "Life at the Fenceline" report, which I referenced. Thank you.

Mr. Richard Moore, NEJAC Member: Well, I just wanted to thank you, Stephanie, for that testimony. I think you covered a couple of very important points I think some that this Council is aware of and then previous councils that have been before us particularly around chemical disasters and so on.

I think the other key to that piece of what you described was that relationship particularly around climate risk. So we see and you gave some examples of how we see in practice that the climate risk is also additionally associated to the many of the incidents that have been taking place in many of these facilities. I just wanted to thank you for that. We've always said at the end of the day and we'll continue to say it, that climate justice is environmental justice and environmental justice is climate justice. So thank you very much.

Mr. Michael Tilchin, NEJAC Vice Chair: Thank you, Richard. Any other comments or questions for Stephanie from Council members? A short one that impressed me, Stephanie, was -- excellent comments by the way overall -- I think your comment about the fact that a fence line community-based monitoring not only protects the community but that benefit to the facility

itself. When you said it, it was obviously but I had not thought of it before. So thank you very much for your excellent comments.

Ms. Shaina Oliver, Public Commenter: Thank you. I did submit a written public comment as well. I wasn't sure if we would have time, but I just wanted to state that Moms Clean Air Force, Colorado chapter, we acknowledge the stolen lands of over 574 tribal nations. I sit directly on the lands of the Cheyenne, Arapahoe, and Ute nations as well as 45 other tribes that once occupied Colorado.

My name is Shaina Oliver, and I am a field organizer for Moms Clean Air Force and EcoMadres Colorado chapter, representing more than 38,000 members in the state, including being an advocate for indigenous people's rights. Most importantly, I am a mother of four children. My children and I are of tribal affiliates of the Navaho nation descendants of the genocide known as the Indian Removal Act, known to the Dine' as the Long Walk of the Navaho. I was born on the Navaho reservation of Shiprock, New Mexico. I currently reside in Denver, Colorado with my husband and children.

Tribal communities have been a prime target for government exploitation and abuse inflicted on indigenous people in communities throughout history. Treaties and bad deals forced on indigenous people have a detriment to our health, environment, economic wealth. Our indigenous tribal members still rely on centuries-old economic resilience through food sovereignty and native plant medicine adaptation. Historically, the policy violations have ravaged indigenous communities' health, wealth, and environmental wellbeing. As a tribal affiliate of the Navaho nation, I've seen firsthand the devastation of land degradation, health impacts contributed by coal, uranium, oil, and gas extraction. Because of these disparities, indigenous people now have the highest rates of asthma, diabetes, heart disease, cancer, leukemia, adverse birth outcomes, and premature deaths than the general population.

I myself was born prematurely, low birth weight, diagnosed with asthma as an infant, and later diagnosed with a birth defect. As well as my uncle who lives near an oil and gas site also suffered a heart attack and has undergone heart surgery. In addition, my grandfather suffered from asthma continuously before passing away from leukemia, and he was a uranium mine

worker as well as a worker for the coal plant on the Navaho reservation of New Mexico.

According to Physicians for Social Responsibility, the burdens of health impacts from oil and gas pollution exposures can continue to affect three generations in the future. Because of systemic environmental violence and racism built into our treaties, laws, policy regulations, black, brown, indigenous, low-income, and rural people have been segregated and redlined into communities near polluting industries. We are seeing the reality of this playing out once again by industries like mining, drilling, waste sites. Industries are disproportionately impacting the same tribal communities, black, Latino, low-income, and rural communities by either violating or having exemptions from the Clean Air Act and the Clean Water Act. It is known that scientists have known for decades that air pollution is harmful to health and especially true for vulnerable populations such as older adults, people with underlying health conditions, community of color, pregnant women, and children.

Among those with Moms Clean Air Force, black women's maternal health is very disproportionately impacted by climate change. That's something I want to address is that maternal health of women and children and reproductive health is very important to all communities. I look forward to this National Environmental Justice Advisory Council to address the lack of engagement with tribal communities as well as members on environmental concerns and tribal communities. Members must be a part of the planning of addressing environmental justice and public health. I would like to see that coming from this advisory council as well as these issues that are going to continue to be with us until we actually address these realities. Thank you.

Ms. Jacqueline Shirley, NEJAC Member: Okay. There you go. Thank you for your comments. One of the things I'd like to remind the NEJAC is that we -- back in 2016, NEJAC did create a charge for a group to develop the indigenous policy on working with tribes on environmental justice. I think it's time we revisit those recommendations that were signed by that administrator, McCarthy, when she was the administrator. So maybe we need to revisit actually how EPA is engaging with tribes on environmental issues because many issues have been coming up. We've been seeing them over and over again in many of the nations across this country, in Hawaii. I applaud the NEJAC for the previous work that they did in developing the

policy for working with indigenous peoples, but I think it's time for us to revisit that and put it back on the table. Because we shouldn't have to reinvent the wheel, but maybe we need to see if that wheel needs some air. Thank you.

Ms. Sylvia Orduno, NEJAC Chair: Yes, thank you, Jaqueline. Shaina, thank you so much for bringing this forward, especially the issues around maternal health and reproductive health. I think what it continues to be is among the most devastating things that we still have not addressed or the issues that you've just noted and all what is known. It's not as if we're still dealing with unknown factors. It's not as if we even need more testimonials or more research. The information is there. It's long been there. So there is, in my mind, this is a lack of political priority, economic prioritization too.

I'm trying to figure out what is it that we need to actually break through. These are centuries-old issues. I'm trying to figure out, again, within this context of what we're hearing from this administration and the work that is now taking place through the WHEJAC and across other agencies of the federal government and what is, I'm understanding, this additional priority of issues that first nations are saying that they need, there's still something missing. I think it would be helpful to know both from members on the Council and members of first nation peoples who are participating in other federal spaces. Where it is that we are still not getting these matters addressed with the degree that they deserve.

I don't know if maybe even in the examples that you're providing here, Shaina, if you could even name something that says, look, this would make a fundamental shift. This would make the type of difference in starting to say that this isn't just more of the same. People say, oh, we're trying, or people are saying, you just need to wait a little longer because the money is coming, whatever it is. What is actually in the way if there's a way that you can say through your examples of the community work that you do, that you would say, this could be a way to stop business as usual and make the real change that we need? Is there something that maybe you can provide by way of that? Because I think that we really want to figure out through NEJAC how to really push the EPA to make those differences where we can. So anything you can offer would be really helpful.

Ms. Shaina Oliver, Public Commenter: Yes, thank you for asking. I think it really draws down to policy. I mean, this is the EPA where policy is the ruler, the barrier, and to me, that's what I see as the barrier. These barriers that are very environmental racist. The fact that we have these policies that are supposed to protect us and supposed to protect our health, yet they're being violated continuously.

Like, here in Colorado in Commerce City, Suncor refinery has been violating the Clean Air Act regardless through the air pollution control division who are ordered to continue to issue permits even though that they knew these industries couldn't meet the criteria of the Clean Air Act or the Clean Water Act. Then the exemptions are one of those environmental racism that seems to target our communities that these industries are exempt from Clean Air Act and the Clean Water Act through the oil and gas industry for another example.

And then like the speaker earlier that spoke on the Substance Control Act, that was where I began my research in environmental issues was that very act that allows these industries to bring in grandfathered in chemicals into our communities regardless and with exemption. That's where I see where the change needs to be is that we need to address the reality of what these exemptions -- how they disproportionately impact our communities and our environment.

We're not going to exist if we don't start addressing the reality of what these policies are doing and how they protect industry over people and not really protecting public health or environment or our future but are protecting industry's wealth and their future wealth for their children and their safe bunkers that they bought their \$2 million underground condos in the middle of nowhere Nebraska and Kansas. That's where I stand as an individual.

Where I see the dilemmas with these barriers are within the policies itself. Until we address the realities of these policies, we're not going to get anywhere. We're just going to keep shooting fairy tales to ourselves.

Ms. Sylvia Orduno, NEJAC Chair: I appreciate that very much, and I think that in many respects, this is something that we hear a lot of communities say. Just enforce the policies. Stop providing exemptions and make the polluters pay. Some very basic principles and fundamentals

that we say that we're about, but they're not happening. So we've got to actually see some real examples in this administration to say, look, this isn't just more talk. We want to see where those challenges take place because we know that industry is going to push back, fight back, and then this starts setting into place all of the lawsuits and all the injunctions and whatever else.

But I think our communities are at this point of crisis where we just have to do it. We just have to fight those fights, and I'm thinking that that's part of something that we can really push this current EPA administration to really see about where are these examples where those fights can be made. I think that we need to, like as you're saying, just even look at some of the examples specifically within the Navaho nation and what's happening in Denver. Thank you for that. I can tell you that all of these continue to look into this through the EPA and NEJAC.

Ms. Heather Croshaw, Public Commenter: Thank you, NEJAC, for the opportunity to speak to you today and for your time and attention to our public comment. I am here today speaking on behalf of the St. Croix Environmental Association. It is an environmental grassroots organization based on St. Croix, U.S. Virgin Islands, which is a U.S. territory. A reminder that it is also a disenfranchised community and it's also a community of color.

I'm here to tell the story about Limetree Bay refinery, which some of you may have heard about already through the news or through contacts at EPA. Recently, the community of St. Croix experienced an acute environmental and public health emergency caused by Limetree Bay oil refinery. The fence line communities surrounding Limetree Bay refinery is a designated environmental justice community by EPA and that was done when Limetree Bay was applying for a cleaner act permit.

Unfortunately, before the facility opened, there was no monitoring by EPA in place or the territorial government agency when the refinery started operations. That is unacceptable and cannot happen again. I cannot emphasize that enough. Within weeks, the oil refinery was polluting the island. People complained of headaches, skin rashes, irritated eyes and throats, and migraines. The smell was so strong it would wake them up in the middle of the night. It got so bad at one point, people were rushing to the emergency room. Then on May 12th, a coker fire at the refinery caused not just a huge smoke plume to go west but it also rained oil again on many

community members' homes.

As I said, there was no government monitoring in place to capture any data to establish how bad this pollution incident was. By May 15th, EPA used the Clean Air Act, Section 303 order to mandate that Limetree Bay refinery shut down temporarily for 60 days. That deadline day for them to potentially reopen is July 15th. It's coming up quickly, and we need help from EPA to get ready for the refinery to potentially reopen.

As of today, EPA released a press released that announced that Limetree Bay will have to have air quality monitoring installed. They have to have a plan developed within 15 days, and I think it's up to 19 -- huge improvement, but there still needs to be more. We need community monitoring put in place so that we can build trust again because that trust has been broken between EPA and local government and community groups. EPA also needs to take the lead on building capacity of the local environmental agency DPNR to establish high level monitoring that also uses federal reference methods. So this multiprong approach will help the fence line community on St. Croix be prepared for the next environmental disaster. Thank you for your time.

Dr. April Baptiste, NEJAC Member: Yes, good afternoon. Thank you so much, Mike. Thank you, Heather, for your comments. First, I want to say that it's really great to have some public comments from U.S. territories and the Caribbean particularly because sometimes the Caribbean territories get lost in being recognized as vulnerable communities. So thank you for bringing this issue to us.

It's more of a comment that I want to make. I'm not as familiar with issue that you raised in the Limetree Bay issue, but I do think that we should pay close attention to this particularly given that St. Croix and the U.S. Virgin Islands have just faced and also recovering from hurricanes. We do have an upcoming hurricane season as well, which also puts some of these issues on the side because I want to say, sometimes, we're focused on the hurricanes, and the other issues get placed on the backburners. So I think that's really important to elevate some of these other environmental injustices that are taken place. I think that your asks are very clear in terms of needing to build enough capacity et cetera, and so I really hope that as NEJAC would be able to

find space to be able to elevate these issues again. Thank you so much for your comments and for really bringing the Caribbean islands and territories to the forefront.

Dr. Sacoby Wilson, NEJAC Member: So glad you were able to get on here to provide these comments because I think with going with Dr. Baptiste has said that your comments are very powerful. As Dr. Baptiste said, we need to have more coverage of what's happening in the Caribbean. Just to respond to what you said, this facility, everyone, this refinery, you saw it in the news. It's a shocking example. I'm not sure on what we can be shocked by refineries dumping on communities, but this is an example of refinery dumping on a community. I think Heather said in the comments, but literally they had silt like volcanic ash from the facility dropping all over island, particularly who were living right by, working right by, going to school right near, being in daycare centers right near this facility. Like ash being dropped. And Heather can provide more commentary on that experience.

But I think it's very important to highlight that environmental racism shows up not just in the lower 48, but also as Dr. Baptiste said, in the Caribbean. So how's the EPA going to respond to this dire issue? That 60 days is fine. Monitoring's not the solution. This facility should not be able to operate. That is the solution, and as Dr. Baptiste said, you got hurricanes coming through. As we talked about the conversations about the risk management sites and going back to what happened with Hurricane Harvey in Houston and other examples of this critical oil and gas infrastructure, you want to use that language. Being in these hurricane zones, you are going to keep seeing this happen with increased risk of impacts not just but from the poor operation of the facility that should not be in operation, but the fact that if a hurricane comes through, what is going to be the damaging impacts on the environment and human health?

Go back to Hurricane Harvey and what happened with the releases after Harvey, the VOCs, the BPECs, the Benzene, the folks who live near those facilities in Houston, the Pleasantville communities, and all those communities we know about. That's the same situation that's happening in St. Croix.

I would advocate for the Council, as Dr. Baptiste said, to spend more time looking at these issues for folks in the Caribbean but to the EPA you have to step up monitoring, we don't need more.

Who said it earlier? Sylvia, what did you say, Sylvia? We don't need more data. If you've got silt ash on your car, falling on your face, and you're breathing it, you don't need more data. That thing needs to be shut down, that is the solution. I'm going to be quite because I'm getting hot, but it's egregious. It is racist. It is genocidal. That facility should not be in operation.

Ms. Jacqueline Shirley, NEJAC Member: Thank you for providing your comments in our forum today. My question is basically to the EPA staff on the call because I'm not familiar with the infrastructure that I'm about to ask. Now, EPA, is there a response team to environmental disasters kind of like a FEMA response? I mean, do you guys have a team that goes to these community when something -- there's a disaster and you stay there for a while? It could be a multiagency response team to address this because we've kind of heard these things from Flint and now we're hearing from the Caribbean and a lot of communities that have blowups and disasters. So does EPA have an environmental response team? Of course, in EPA, EJ should be within the fabric of the operations, so EJ would be inherent in that environmental emergency response team. I don't know if EPA has been gutted and maybe you guys are rebuilding back the workforce. That's my question is about emergency environmental response team. Thank you.

Ms. Karen Martin, DFO: Hi, Jacqueline. So the emergency responses handle out of the Office of Emergency Management and we do the emergency response that EPA as it relates to superfund sites and natural disasters. We work with FEMA with multi-agencies when there are natural emergencies, so we are a part of that response.

Ms. Heather Croshaw, Public Commenter: Thank you. Yes, an emergency response team was sent down there, and they have been fantastic and really responsive. We also had a hotline set up as well. EPA set up a hotline, and people used it and called in emergencies. So it was a really -- for us, it took a while, but kudos to EPA for doing that.

Ms. Karen Sprayberry, NEJAC Member: Yeah, I want to ask a question. Since the emergency response team was sent down, they've also probably sent a community involvement coordinator with them. So how has she or he been working with the community there? Communicating with them, organizing anything, helping, what has that person been doing?

Ms. Heather Croshaw, Public Commenter: Thank you. I wasn't sure if I should respond. I don't have an answer for you, but I can get back to you if that's okay? I hope so. I don't know if EPA has a person on the call who can answer that question.

Ms. Karen Martin, DFO: And we will follow up with EPA Region 2 to get a response for that as well.

Ms. Hermila Trevino-Sauceda, NEJAC Member: Okay. Thank you. I really appreciate that. I'm going to read this just because it's about what was talked about, and I'm sorry I did not take the name at the moment of the woman that gave the information.

"The heat illness means a serious medical condition resulting from the body's inability to cope with a particular heat load. That includes heat cramps, heat exhaustion, and heat stroke, and other heat illnesses. Environmental risk factors for heat illness means working conditions that create the possibility that heat illness could occur including air temperature, relative humidity, radiant heat from the sun, and other heat sources conductive such as the ground, air movement, workload," and it goes on and on in terms of if it doesn't have protective clothing and personal protective equipment worn by employees.

I'm reading this because we have thought a lot -- even though this is more related to OSHA, OSHA's responsiveness, and the lack of -- here in California, there's regulation in terms of heat stress. After 80 degrees, there's supposed to be more breaks, sufficient clean water to drink, and shade. I can only tell you this: if people are going to the situation of heat and I think people that are hearing me from our Council that understand what the environment and risking it with the pesticide use and having pesticides being applied even one day or whatsoever, we don't even have an idea if those pesticides are gone or dissolved, or not because of the heat. We have no idea how that is affecting it more.

Last year, as I said earlier last year, was just one example of pockets of different communities just in California. I'll talk about California real quick, and this is just in California. There's more than 15 pockets of communities of families with children with a lot of special needs, and we're talking farm worker families. It has to do with the use of pesticides, and we're not connecting it

with the heat environment, the heat stress. There's been people that have died and when they have died, they're only relating it to heat stress, but they don't relate it to pesticides and poisoning. Or they relate it to pesticide poisoning, but they don't relate it to heat stress.

I just wanted to mention this that, as agencies, we're working very separate from each other. EPA's not working together with OSHA and different agencies are not necessarily looking into finding ways how they can see the connection of how it's harming. There's many things, and, to end this conversation, I was nine years old when I almost found my mom died because of heat stress. Believe me, this is not going to go away. Why? Because you feel powerless when someone is going through that and you're upset with what's happening and you don't know what to do. And this happens a lot in the workplace, not only with farm workers, construction workers, landscaping, and other outside workers. This is something that's very hard to really think that we're doing something when, in reality, we need to do much more.

Heat stress and pesticides are much connected in our culture and many other environmental issue places. So, if there's superfunds and there's places like where there are a lot of chemicals involved, the heat is creating even more worse medical health issues to our communities. So I just wanted to bring it up. Thank you.

Mr. Michael Tilchin, NEJAC Vice Chair: Mily, thank you. You made an extremely important and obviously very personal and powerful connection there between exposure to chemicals in very high heat environment and how those two can come together to cause so much more harm. So I really appreciate your both highlighting that in the context of what Shaina spoke to us about and the broader issue for protection of workers. Thank you. I think we are ready for our next public commenter.

Mr. John Mueller, Public Commenter: Okay. My name is John Mueller. I'm a retired civil engineer. The issued that I want to address is community water fluoridation. EPA is currently being sued in district court in San Francisco right now by multiple plaintiffs. I am not one of them, but I do support one of them in whatever way I can. I learned about community water fluoridation a little more than 12 years ago when I was tasked with preparing the technical specifications for fluorosilicic acid, the fluoridating chemical, and preparing the specifications

for putting a purchasing contract to bid. I learned then that what we add to the water for drinking to prevent a few cavities here and there is tainted, contaminated with invariably with arsenic. In many locations, it's contaminated with lead. What is going into the water to prevent cavities is not a pharmaceutically approved treatment. It is an industrial waste product.

So I've been trying to -- I've spent more than 20 years in public service most recently where I retired was the city of Tulsa and when I learned what we were actually putting in the water, I started studying this whole issue. I was going to present some of the same information that I presented to the White House Environmental Justice Advisory Council back in March, but I'm not as prepared as I would like to be for this one. I want to ask what the NEJAC and all the other environmental justice advisory councils are doing and plan to do about community water fluoridation and ending it? The most recent studies show it's as toxic as lead in their drinking water which we know obviously as you would, but I'll stop there. Thank you.

Ms. Jacqueline Shirley, NEJAC Member: Yes, now, thank you for your testimony. Now I might be incorrect, but I'm the tribal member from the native village of Hooper Bay, and we had a fluoride poisoning back in the last '90s where we did have a death. Dominic Smith died of fluoride poisoning, and we had 20 members of our tribe hospitalized for fluoride poisoning. So our tribe, our community decided that we will not have fluoride in our water anymore no matter how much Indian Health Service and Native Health Corporation, EPA, or anybody else tells us it's good for our children's teeth. Many of our fellow villages in other tribes, they follow suite.

Am I correct, adding fluoride to the public water supply, it's a local issue? Local governments can decide if they want fluoride in their water or not. It's not a federal requirement. The feds cannot force fluoride in a water system. I think it's local action at least in Alaska. Some communities decide no fluoride. Thank you.

Mr. John Mueller, Public Commenter: Yes, that's true. The only regulation on fluoride is the maximum contaminant level in drinking water. Primary drinking water standards by the EPA is four milligrams per liter without maximum contaminant level goal of four milligrams per liter also. There's a lot of history there, but, back to main point, yes, that's the only federal regulation that has any control over the fluoride in the drinking water. It is at the local or state level. A

number of states have mandated public water fluoridation under certain conditions if a population is so much greater than whatever or there's certain criteria to meet those mandatory requirements, but, yes, it's either at the state or local level.

Ms. Ayako Nagano, NEJAC Member: Oh, it's okay. Yeah, I just wondering if the rules are at the state or local level, I'm wondering, Mr. Mueller, what would be the role NEJAC would play? How can we help?

Mr. John Mueller, Public Commenter: Very good question. Promote the ending of community water fluoridation. I will read to you just briefly what I said at the White House Environment Justice Council inaugural meeting then. I said, "I am commenting today to strongly urge the powers that be to do two things: first, accept the fact that community water fluoridation, CWF, is a little known yet most egregious example of environmental injustice." And I referred to the League of United Latin American Citizens. Now, that document -- a resolution -- by LULAC, I have provided to the committee in writing as part of the public comment. I would encourage every member of this advisory council to read the materials that I have provided in writing. There's a lot more than what I can say in three minutes. So I would just beg you to do that because it is a false narrative, which it is, to say that water fluoridation is safe and effective.

It is not safe. There are numerous recent studies proving that, and it is marginally effective. The most recent studies are about neurodevelopmental toxicity. That is the brain developing in the unborn child and in really infancy and early child brain development. It is a neurotoxicant. It can reduce IQ. It can enhance the incidents of ADHD. When it gets into the brain -- and it's toxic to the brain, just like lead or mercury or arsenic -- it can do a lot of damage. It may not be acute showing up all at once, but, down the road, you've got increases -- I think the country is in a mental health crisis. It's in an oral health crisis among children in underserved areas, and they're more affected by fluoride because people with poor diet and nutrition are much more vulnerable to toxicity from environmental toxicants. I think that is probably a very well-known motivator for the creation of environmental justice initiatives in the first place. That is certainly the case with fluoride.

Ms. Sylvia Orduno, NEJAC Chair: Mike, may I just add one more thing? So I've heard folks

also in the Flint community raise concerns too about fluoride, and one of the things that might be helpful too is to learn more from the EPA around the science of this. I don't have scientific information, but I know, anecdotally, I've heard from folks in Michigan say that there are a lot of communities that don't trust their tap water and are moving more to drinking bottled water. There is at least one report that I heard from folks saying that they started noticing, especially in young children, that they're having more dental problems. They tried to associate it with the lack of drinking tap water.

I don't know the truth to that, but I think that there's definitely more we need to learn around that because I agree that it's an EJ issue, especially when we're talking about people that are in lead-vulnerable communities and folks that don't have quality drinking water or don't trust their drinking water sources. I think it's definitely something that would be worth NEJAC looking closer at in the conversations around the water work that we're also investigating.

Mr. John Mueller, Public Commenter: EPA does not have the science to make those calls. The court case in San Francisco right now, the EPA defense hired outside consultants who have a track record of winning cases for industry. Those were the experts that EPA deposed and brought on as expert witnesses, and they failed miserably. I think what we can see in the next six months to a year is that TSCA trial in San Francisco -- I think the judge, Judge Edward Chen, who is remarkable. He has kept this going for several years because he wants to learn as much as he can about it. I think he's going to rule in our favor that the EPA should ban artificial water fluoridation at least until it's safety can be proven. There are no studies that have shown that it is safe for all consumers even at the most vulnerable subpopulation groups. I'll stop there.

Ms. Rachael Lehman, Public Commenter: Great. My name is Rachael Lehman, and I currently serve as the Healthy Community's chair for the I-70/Vasquez Boulevard Superfund Site Community Advisory Group. I just want to give you a quick snapshot of my community, but the reason why I am here today is to ask the EPA to simply follow the law in my community. In particular, the process that we've had with our community improvement plan has fraught with -- for instance, just lack of community. That's to start with.

We have requested multiple times to know who was actually interviewed. We don't know who

was interviewed, and very small amounts of people were interviewed as well. There's lots of documents that we've requested, and we've had to use FOIA in order to get those documents to see who you interviewed to actually consider this to be anything near a community improvement plan. So what we've also experienced in our community improvement plan process is it's downright hostile and adversarial. The local people in our meetings and our coordinator as well have many times, more than not, not listened to what we were saying.

In one meeting in particular recently, as our experts -- and I would say that there's some sexism involved here as well -- as our women scientists that come forward and have presented at our group, one of the people there have said, you're wrong, interrupting our researchers and interrupting our scientists, saying you're wrong, that's wrong, but then allowing male scientists to continue to talk and to actually present their presentations. We've also heard from our local folks that the community improvement involvement plan has everything to do with, they said, "How we're going to communicate with you," not vice versa. So there's been a really problematic relationship between our CAG and the people who are local representatives.

This is definitely an environmental justice issue, as well as the people in my community are 84 percent of them Hispanic or low income. We also, I believe, 14 percent are high school graduates. So this is really disturbing considering that people who are maybe speaking English as a second language can't actually have their voices heard in their local community superfund site. Thank you.

Mr. Richard Moore, NEJAC Member: Yeah, I just have a couple of questions. How has the interaction between the issues that you've testified to? Has the region itself been proactive in any way in terms of helping you all?

Ms. Rachael Lehman, Public Commenter: Yes, it's Region 8, and it's the community involvement coordinator in particular. Then there's also because we are a superfund site, it's also controlled by the Colorado Department of Health and the Environment as well. So there are members that are adversarial in those regards as well. It's really just, at every step of the way, we are just trying to ask for the ability to make comments. So we've had operable units. One of them has since been delisted without a lot of community involvement in delisting. There should

still be an OU there because all of the yards have not been remediated. There's just not an honest genuine effort to get engaged in my community. There's plenty of statistics, plenty of data out there to prove how toxic this environment is and this area is. So we don't need any more of that. We just need folks to listen to us and then to follow the law.

Mr. Richard Moore, NEJAC Member: Have you had interaction with OEJ, with the Office of Environmental Justice?

Ms. Rachael Lehman, Public Commenter: No, we have not, not yet. Is that my next step? I would like for oversight, some national oversight on this region. I'm asking for help in this regard.

Mr. Richard Moore, NEJAC Member: So then my understanding is that you're asking the NEJAC Council one of those things to advise the OEJ in terms of getting OEJ staff looking into this situation. Am I correct?

Ms. Rachael Lehman, Public Commenter: Yes, please. Thank you.

Rev. Edward Pinkney, Public Commenter: Absolutely. My name is Reverend Edward Pinkney. I'm the president of the Benton Harbor Community Water Council here in the city of Benton Harbor, Michigan. For several years now, the city of Benton Harbor have had access lead in their water. In 2018, Benton Harbor's lead level was 22 ppbs. The federal lead action of 15 ppbs is the minimum. That's way too high. It shouldn't even be 15; it should be closer to three or four. It then jumped to 32 ppbs in 2019, and then it fell to 24 last year. Still Benton Harbor result that had a range from 24 ppbs to 32 ppbs. One of the things we had here, one of our schools tested 640 ppbs. We understand that there's an issue, but no amount of lead is destined to be safe, and we have an access amount of lead here in the city of Benton Harbor.

Here's some of the things I would like to see done. We were given water filters here in the city of Benton Harbor by EGLEs, I believe. It was given to health department. The health department did not know how to distribute the water filters to the community. They thought that if they had them, that people would come and get them. They thought that people would come

even though most people here -- this is one of the poorest communities in the whole country, and when I say that, I mean it because that is exactly what it is. They had no idea how to distribute the water filters. They figured that, if they tell people they had water filters, people would come. But also, after using the water filters for 30 to 60 days, you also have to have a replacement. The people were not going to go that far and deal with that thing. The way that it should have been done -- most people didn't even know how to put the water filters on. We wanted to make sure they were doing the things that were done.

Number two, we're having lead pipes from the streets to the house. They're saying that it's going to take 20 years for that to be done, 20 years. That is ridiculous. It should be done in 5 years. For me, for 20 years, that's a whole generation of young folks that's going to be lead infected. We have things that we need to do that we have to do today.

See, the EPA has to be a little more proactive. They have to be sad now that the lead level is 15, which is the action level. No, that is not going to get this done. We need to have it down to four or five. That should be the action level that we should be talking about also to make sure that it doesn't take 20 years to change the pipes from lead over to copper. To me, that is crucial. That is something that we have to get into. That is something that we have to talk about, and I expect the EPA to be more proactive. That's in a community like a city of Benton Harbor. We need to change and get that done.

We need resources in the city of Benton Harbor. We need resources. That's one of the problems we have because they have no knowledge of exactly what is going on there in reference to the city. They didn't even want to test for lead. They were satisfied with the lead being at 22 parts per billion. They thought that was okay, but it's not. If you have any lead in your water, there should not be any lead in the water. So we're asking that the EPA to step in and be a little bit more proactive and change this thing around and get people safe water. So, if they can come in and get people safe water, then the community would be much better.

I just want to thank you for taking the time out to hear exactly what I had to say and some of the issues we have, but we've got to do better. One, we've got to lower the action level. It's got to be lower. There's no other way. We cannot wait 20 years for the lead service lines to be replaced.

We can't do it. It's going to kill half the community. If we don't get this thing done, it's going to continue just that way. I want to thank you for listening to me.

Ms. Melissa McGee-Collier, NEJAC Member: Yes, thank you. I don't really have any questions, but I wholeheartedly agree that infrastructure in our cities is detrimental to the health and wellbeing of our citizens. I don't know how many of you have been following the city of Jackson in Mississippi issues, but they've had something quite similar to what has been talked about today as well as in other past NEJAC meetings. They've had two wells often people have been without water, I would say, at least almost two and half months without clean drinking water that would come out the faucet. So infrastructure is something that we have to push for as the NEJAC.

To that last speaker, I believe her name was Rachael, I just wanted to say that some of the issues that she brought up about the lack of engagement or the -- it appeared based on what she was saying that there is not only a lack of engagement but also a lack or desire to even engage. That's one of the things that NEJAC has taken up in our superfund report where we talked about the consistency. Because, if you go from one region to another, you see where community involvement coordinators have different -- even though they supposedly went under the same training, the superfund training -- their mentality, their response to the community, especially -- and I can only speak for Region 4 but -- compared to Region 4 to what Rachael talked about in Region 8 is totally different. There has to be consistency across EPA with programs that are meant to help engagement components with our community. Thank you.

Ms. Karen Sprayberry, NEJAC Member: Hey, I kind of want to just go back and reiterate what Melissa just said about community component of it all. You know, there's all this water infrastructure money coming to communities or coming to states, and we're fortunate in South Carolina we have people like Harold Mitchell who's always telling our community folks, y'all need to get shovel ready. You need to be figuring out what you need to do to get the money coming.

So I think there are a lot of communities across the nation that all this money's going to come down the pike and they don't quite know how to go about getting it. So I kind of wonder -- and I

don't know if this would be helpful or not or if EPA could do this but -- how can they help communities be better prepared to get these moneys coming down the pike for all that infrastructure money coming and all these other moneys coming? So that would be my suggestion. I would think that could be helping community of having like a webinar on how to get ready to get some of these dollars.

Dr. Ben Pauli, NEJAC Member: Thank you and thanks so much for your comments, Reverend Pinkney. I know from personal experience how hard you're working right now to raise these issues up, and you made a lot of great points. But there's one in particular I wanted to come back to and just kind of lift up a little bit. You started off talking about filters and the way in which filters have been deployed in Benton Harbor, and I really wanted to highlight that issue because I don't think it's gotten enough attention.

In Flint too, we saw filters being presented to the community as a kind of one-size-fits-all solution without, I think, enough thought about how exactly those would enter into people's everyday lives and experience and whether people would be able to install them and maintain them and use them properly and so forth. So one of the things we saw in Flint is that sometimes because filters weren't being used properly, they actually created health risks that weren't there before.

In addition to that, they also create issues of cost. If you don't have people offering you free filters and replacement cartridges and so forth, you've got to go down to the hardware store and buy replacement filters and replacement units. So filters are an environmental justice issue. In some ways, they can be extremely useful and empowering because they offer people the ability to kind of take control of their water quality at the point of use. But on the other hand, they involve a lot of complications and challenges that, I think, haven't been adequately looked into by people who are recommending these as a means of coping with lead contamination and other kinds of water contaminants.

So I hope that this is something that the NEJAC water infrastructure subcommittee will be willing to take up because filters are being pitched not only in Benton Harbor and Flint, but around the country as at least short term solutions to lead contamination in particular. Again, in

many ways, they're great, but in other ways, they've got some problematic features from an environmental justice perspective that really need to be carefully considered.

Rev. Edward Pinkney, Public Commenter: Absolutely. Dr. Pauli, here's what I would like to say. When they thought about this, what they failed to do was educate the community about how they should be used properly. Once you use the water filter, you also have to go and get replacements. What they would do is they would not give them four or five extra replacements; they would only give them the water filter. What that did, that created a problem because most of the time, the water filter lasted from 30 to 60 days at the most. And then you also have to teach them how to put it on. There was no training, no education, just if you want a filter, call this number. When you're dealing with a low-income community, chances are they will not call that number and ask for a filter. That's why some of the things that were happening was happening.

This is what the EPA must do. The first thing we've got to do is educate the people. You see, that's what they failed to do. When it comes to water filters and it comes to lead, period, you've got to tell the people about lead. You've got to get out there and put boots on the ground. You've got knock on doors. You've got to go deal with this issue. If you're not dealing with them directly, the average person is so busy trying to survive, they'll drink lead water forever.

One guy told me, I've been drinking lead water all my life. Ain't nothing wrong with me. But that was the lead talking. That wasn't him. A lot of times, people don't understand. That's lead talking to you and that's what the problem that I saw in my community. But let's do this; let's get the EPA to lower it down to four or five. Let's get them the say that it's going to take less than 20 years to replace the lead pipes. If we can do that and then work on this water filter issue, we'd be okay. That's all I got to say.

Dr. Na'Taki Osborne Jelks, NEJAC Vice Chair: I'll keep my comments brief because I think Reverend Pinkney just preached the sermon on the filter piece, which was what really spoke to me when he gave his comment in the first place. I really am appalled that we're talking about a health department who used those types of strategies. Not only do you go to the people and knock on doors, but you go ahead and install them. You don't just ask for people to call a

number. You have to educate people on how to use what you're giving them and also give them what the limitations are. If it's only good for 36/60 days, then that type of information has to be shared with people, and, if we're talking about this from a perspective of solutions, then you can't just give people one filter if you have not fixed the lines.

So I really just want to say that our infrastructure in our cities and our rural areas, these are preexisting conditions in overburdened communities. They are preexisting conditions that lead to all manner of illness and poor health. So we've got to do something to address this. I just feel like there's a trend. I'm hearing the same thing, person after person who is giving public comment whether we're talking about Flint or other locations across the country. So EPA really has to do more, I think, in terms of the collaboration and guidance in terms of these public water systems and others so that we can get these issues addressed.

In the United States of America, we just should not be having these sorts of challenges in the year 2021. And if it's going to take us a long time to fix these problems to get to the root causes and to address them, then these interim solutions have got to be a lot better. I really just wanted to thank Reverend Pinkney for sharing what's going on, and I hope that in terms of our water working group that we will take this up along with many of the other issues that we've been talking about. Thank you.

Dr. Sacoby Wilson, NEJAC Member: Thank you for those comments, Reverend Pinkney. You've got me -- y'all can't tell but -- I am so fired up. I'm just going to let the fire come out. How are you going to put America first if you don't put your kids first? Reverend talking about kids living in toxic environments. Na'Taki just said it. We failed on lead. We've known lead is a neurocognitive toxicant. It makes no sense to me what Reverend said about 22 ppb. Why is the action level 15? He said it. There ain't no safe level of lead, y'all. That means you've got so many kids potential being capped. That is environmental racism in itself. Vi has said it too. What the heck is a filter, Ben? That's a band-aid, man.

I'm sorry, y'all. We have dropped the ball for millions of folks, but this is the issue, y'all. We basically making people invisible. We don't care. If you've got people exposed to lead, you heard what Reverend Pinkney said. 20 years? A whole other generation of kids with a 85

percent black folks in Benton Harbor? A whole other generation of kids been exposed to lead, being poisoned by lead. I told y'all before, this is another example of state-sanctioned poisoning. Fifteen parts per billion, there's no safe level of lead. It should be two/three, right, Reverend?

Rev. Edward Pinkney, Public Commenter: That's right.

Dr. Sacoby Wilson, NEJAC Member: Three/four. We're going to start with four. Get it down to two. Get it down to one. Get it down to zero, right. So given the comments about infrastructure, we know what the problem is, but we emphasize about the money. You get racist regimes analyze communities. You've got regimes that are not going to allow that money that we're talking about to get to those communities. So how are we going to make sure, NEJAC, EPA, that the folks with the most needs actually get the money? We've been talking about this in previous NEJAC discussions and also WHEJAC discussions about, yes, communities need to get ready, but -- I know I'm talking too much y'all.

I'm going to quote Omega Wilson. He lives in Alamance County, one of the most racist counties in the state of North Carolina. They're so racist, they spent money to put a fence around a confederate monument. How are you going to get money down to his community to address pipe issues and infrastructure issues when you've got that kind of racism in the government, in the local government, in the state -- ooh, I won't say state government. I forgot, you do upset -- I'm going to leave that one alone -- but how are you going to do that, y'all? That's a serious comment. So how are we going to get the dollars to these communities when they have racism built into the system?

I'm about to be quiet, but my last point is getting to Sister Melissa's point, but we're talking about the different practices of the community engagement folks. But we have to put it into their performance review. If you have a culture of just sitting on the job and not doing your job and you're getting a paycheck, we've got to stop that. So, to make sure we change that culture, in your performance review, how are you committed to addressing environmental justice? How did you implement the EJ plan of that state? We've got to have it knocked out in a performance review, y'all. If people are not doing their jobs, get rid of them. So we've got a culture in these agencies where folks are not doing their jobs because we're not holding them accountable.

I'm going to be quiet, but there's a reason that people should be exposed to lead in this country. There's a reason that black kids, kids of color are being exposed to lead and not reaching their full potential. The lead and copper rule at EPA, NEJAC, we need to have a group that actually looks at the lead and copper rule to push the EPA to change that. And also to go beyond the filter solution.

You've got other communities -- I'm going to be quiet. I'm going to try and be quiet -- but other communities too when you have a water issue. Go to southern Delaware when you're bringing water buffalos. You've got folks that water's so contaminated, you've been soaking in that so many years, they've been on bottled water for years. Why are folks drinking bottled water for years? We are not serious in this country in addressing water issues, water quality, potable water, drinking water. We see it time and time again, and so, NEJAC, we're doing the work, but this is one of those issues that, I think, we need to elevate a little bit more. I know we're already overextended but it's important. So I'm going to stop talking.

Ms. Sylvia Orduno, NEJAC Chair: Thank you all for this conversation. Reverend Pinkney, I'm thrilled that you're here and so you know that in Michigan, many of us that are working across these different cities where we've got these lead problems and how to figure this out. So we know that we've got to come together to figure out this problem at the state level and then figure out how to push it at the regional and federal level. So I'm really glad that you came here today to give that powerful testimony because it needs to be had.

But I think one of the other things that it's important to note -- and again knowing Benton Harbor and the work that Reverend Pinkney and the water council have been doing there for years -- is that we also see how it is that these smaller systems are almost being forced to have these conversations about restructuring and consolidation against the world of what the local residents want. It's facilitated by not having the proper staffing, proper technical assistance, contractors that are running systems, a lack of accountability, lack of enforcement of regulations. So the residents are basically forced to fend for themselves.

So while, yes, we know that moneys are coming down and there needs to be more support for

how those revenues are being used, many water utilities already have in mind their own design for how it is that they want to use these moneys. There's a lot of them trying to figure out what to do with all these arrearage bills that piled up during COVID, how to pay back utility debt, and trying to figure out how it is that they want to start figuring out their infrastructure plans. But those conversations, many times aren't happening in alignment with EJ needs.

So I can tell you while Benton Harbor is talking about 20 years, Detroit is looking for permission for 40 years. So what we see too in these proposals that get put forward to EGLE or state revolving fund loans, is they have their own design about what the priorities should be. Right now, like in Detroit, they're focused in the areas where there's commercial development and tourism, so that those mains and sewers get done. Those lead service lines in those less impacted communities get done, and all the other communities across the city got to wait 30/40 years to get their pipes done because they're not part of the development priorities.

So this is again, part of those EJ violations and how it is that we've got to say, no, water utility, you don't get to make those decisions. But the ways in which our water utilities have their public hearings rubber stamped poor community engagement, no EJ discussions about how it is that we address these long-standing needs, and the health disparities are not part of the utility priorities. We have to actually really push on EPA to stop being so comfortable with that because I've been saying this for a long time. EPA is part of the problem around the water issues across our cities and states. So, as we're looking at this next conversation going into the part of the business meeting here when we have this report about what we're going to be doing in the water charge update working group, this is part of what we need to be getting prepared for. Over the next weeks and months are these types of conversations.

So, Reverend Pinkney, we're going to be needing you to come back. Also just a final note that Reverend Pinkney with Benton Harbor, folks in Highland Park, Detroit, and Flint, we also got selected to be part of these EPA, LCR round tables that are taking place later this month. So Reverend Pinkney and Highland Park, we'll be having a roundtable on Tuesday just so folks know if you want to learn more about what's going on.

Rev. Edward Pinkney, Public Commenter: Absolutely. Sylvia, Thank you so much. I tell you

it's an honor to even have this space with you guys today. Thank you. Thank you. Thank you.

Dr. Jan Fritz, NEJAC Member: Hi. Jan. I just wanted to comment on this because yes-- well, first, I want to thank Reverend Pinkney for his important statement. Yesterday, Fred Jenkins and I met with the EPA people working on lead. They are interested in what environmental justice community has to say and what it will affect what they're doing. I suggested to them that they should come before NEJAC, not just take a couple of people's comments. I think that will happen. I'm hoping Fred and Karen will talk about that, and I'm also asking that Fred and Karen put Reverend Pinkney in direct contact with the people we talked with yesterday because he's got a very powerful statement that I'd like them to hear directly. Thank you.

Ms. Karen Martin, DFO: Thank you, Dr. Jan. Absolutely. The superfund office does want to engage more with NEJAC on this issue. The very first meeting was just kind of the first step to have just a quick consultation with a few NEJAC members, but we will be hearing more from OLM, and we will put them in contact with Reverend Pinkney.

Ms. Jacqueline Shirley, NEJAC Member: Thank you and thank you, Reverend, for joining us today. I was just listening to Sylvia speak just a moment ago. One word that struck me like a lightning bolt was when she said, violation of EJ regulations. Now, does EPA actually have environmental justice laws? I mean, a violation of regulations or are we just all working on principle here? Because the Clean Water Act, the Safe Water, and on and on, all these environmental laws. There's laws. There is enforcement. There is citations. There's violations. Or is EJ just a principle that we're working on. Do we have actual environmental justice regulations, laws, and acts? Thank you.

Ms. Sylvia Orduno, NEJAC Chair: That's a really good question, Jacqueline. I think that I don't know that I would say I've seen it where it's named specifically, right, but the intentions behind -- the cumulative health impacts, monitoring -- that lead to policies and regulation development were based on those premises. But I don't know that you're right that they were named as such.

Ms. Jacqueline Shirley, NEJAC Member: Well, maybe we need to elevate environmental justice more than just policies and principles. Maybe it needs to be elevated to law. Maybe environmental justice needs to be elevated more than just as a principle and a wish list. Thank you.

Ms. Sylvia Orduno, NEJAC Chair: Very good point.

Dr. April Baptiste, NEJAC Member: Without getting too serious and lectury from my class, one of the things that I know about environmental "regulations", we have the Executive Order 12898 that sort of guides the principles and regulations. But I do know for those that are in the activism space, there is a proposed bill called the Environmental Justice Act -- I think that's the name -- that is in the House right now. I forgot the two representatives that brought it forward, but last fall was the first time that they had the first hearing. If I'm not mistaken, Dr. Mildred (phonetic), testified before the committee. So there are things in place, but I do think that this is where we need to push for sort of this federal level law that will then allow environmental justice issues to be addressed in a more wholistic manner rather than just from a principle-based perspective. That's one of the things that I always tell my students that we need to push for the regulation piece.

Mr. Michael Tilchin, NEJAC Vice Chair: Thank you, everyone, for participating in the public comment period and announced the break before the next session.

NEJAC BUSINESS MEETING REFLECTION AND CONVERSATION

Ms. Sylvia Orduno, NEJAC Chair, opened up for the business meeting reflection portion of the meeting. She asked Aya Nagano to summarize the public comment discussion before going into the conversations with the working groups.

Ms. Ayako Nagano, NEJAC Member, stated that there were nine public comments. She stated that the first one was from Ms. Sydney Evans, Science Researcher from the Environmental Working Group about increasing the Environmental Justice review for water, specifically the recommendations were to improve communications. She stated that the example given was the Environmental Working Group Tap Water Dataset and she also wanted to see more testing of waters.

Ms. Nagano stated that the next comment was from Ms. Lakendra Barajas, Associate Attorney at Earthjustice and her recommendation was that NEJAC should issue a statement urging that EPA adhere to mandates within the TSCA rule and form a working group around these issues.

Ms. Nagano stated that the director of Flint Rising, Ms. Nayyirah Shariff, commented that the organization needs technical assistance from the EPA to understand the reports that are pretty highly technical, and more engagement. She noted that Ms. Stephanie Herron, a national organizer from the Environmental Justice Health Alliance, commented on the chemical disaster rule that she would like to see a stronger Risk Management Program, RMP, and she gave specific examples that are noted.

Ms. Nagano stated that Ms. Shaina Oliver, a field organizer from Moms Clean Air Force and EcoMadres, commented on the maternal and reproductive health of communities near extraction facilities for oil, gas, and coal. She stated that Ms. Shaina wanted the EPA to address exemptions that disproportionately impact communities of color and to look closely at these exemptions.

Ms. Nagano stated that next was Ms. Heather Croshaw from the St. Croix Environmental Association. She stated that the commenter explained that on the island of Saint Croix, there is an oil refinery called Limetree Oil Refinery that has been spewing ash on the communities ever since it was built. Ms. Croshaw stated that it was closed, and they are reopening, but she would like to see more EPA assistance with the reopening to avoid what happened when it first opened which is unlicensed pollutants everywhere. She stated that the Council's feedback was that it's better if it could be shut down.

Ms. Nagano stated that Mr. John Mueller, retired civil engineer, commented, and urged the EPA to educate themselves more on community fluoridation, the neural toxicity and the harms that come from it and to work towards banning it.

Ms. Nagano said that next was Ms. Rachael Lehman, Chair of the Healthy Communities Organization, and she has been working with the Superfund site near Denver, Colorado. She stated that there has been no meaningful engagement with the community and Ms. Lehman would like to see that improve. She stated that the Council's conversation was inviting the OEJ, Office of Environmental Justice, to investigate.

Ms. Nagano stated that lastly, Reverend Edward Pinkney, President of the Benton Harbor Water Council, testified that there's excess lead in water in Benton Harbor, Michigan and the EPA needs to be more proactive to lower the actionable levels to 4 or 5 parts per million, not 15 which is the current rule. She noted that Reverend Pinkney also stated that the EPA must educate the communities better about lead in water filters.

Ms. Sylvia Orduno, NEJAC Chair, stated that there were a lot of powerful public comments today and responsive comments from the Council on what could be done to help push recommendations over to the EPA administration. She then went into workgroup updates. She stated that the workgroups have met once or twice so this is a check in on plans for the next few weeks to lead to report outs for the August meeting.

Ms. Orduno stated that each of the working groups already have, or will have, at least one EPA staff member assigned to help facilitate communication. She stated that by the August meeting,

some workgroups may be concluded with their work and others may be continuing and an update can be given at that time. She turned the floor to Dr. Na'Taki Osborne Jelks to facilitate the conversation.

Ms. Na'Taki Osborne Jelks, NEJAC Vice Chair, stated that the chairs from each workgroup will give brief information on the progress of the workgroup with a more robust report scheduled for the August meeting. She began with Ms. Mily Trevino-Sauceda, Cemelli and Dr. Jan from the first working group on Farmworker Concerns and Pesticides.

Ms. Mily Trevino-Sauceda, NEJAC Member, stated that the group met once and was able to put together the Farmworker Concerns and Pesticides workbook. She stated that the focus was to ensure the Applicator Exclusion Zone protections be reinstated to what it was before. She stated that the second part is to ensure training and materials are within the cultural context of the farmworkers' communities and to ensure enforcement is effective and responsive. She explained that in relation to provisions, there can be many rules, but if workers don't understand or are being threatened, they will not say anything.

Ms. Jan Fritz, NEJAC Member, added that there are concerns about the pesticides that are being used and that is important both for the consumer as the farmworker. She stated that the other important issue to take a look at is regarding ill-fitting equipment and equipment not a good fit for women.

Ms. Sylvia Orduno, NEJAC Chair, moved to the next working group, the PFAS/PFOA Issues working group.

Mr. Benjamin Pauli, NEJAC Member, stated that the PFAS workgroup has met one time and has identified four areas of priority. He began with community engagement. He stated that NEJAC should ensure that each EPA region is working with residents to understand their PFAS issues, to communicate risks around PFAS, and to address needs. He noted that with respect to sampling and testing of brown water and other drinking water sources, EPA should be using community input to determine where issues are and working with residents during that process of sampling and testing, rather than just reporting results. He stated that the hope is to also see

the EPA improve public education around PFAS to reduce risks to vulnerable communities.

Mr. Pauli stated that there is an interest in whether PFAS can be added to the list of the EPA's priority chemicals, and the hope is that the NEJAC can be involved in that process. He stated that the workgroup co-chair, Sandra, met recently with the Office of Chemical Safety's EJ liaison and is working with EPA on setting up a briefing on how that process works and where PFAS is in the queue. He stated that the workgroup also looked into specific contaminants like standard military foam and peracetic acid as well as issues around food product packaging. He explained that one problem with packaging is that it's classified as proprietary so chemical disclosure is not required. He stated that fast-food wrappers are an important source of PFAS so that issue should be reviewed closely. He stated that national limits should be set on PFAS, on increasing enforcement and on supporting and incentivizing less hazardous options.

Mr. Pauli stated that the third thing is regarding cleanup. He stated that the workgroup wanted to look at how communities are being identified as being priority communities for cleanup with a special interest in communities that are near or on military bases where a lot of PFAS contamination occurs. He stated that there was a particular interest in the issue of seepage into drinking water sources of various kinds.

Mr. Pauli stated that finally, the workgroup talked about emergency relief, and looking at that as both a short-term and a long-term issue. He explained that short-term may involve things like bottled water provision to affected communities and long-term may be some kind of filtration like reverse osmosis filtration and/or carbon filtration systems that can be installed at the household level. He noted that next steps include securing some EPA staff briefings on the current status of the PFAS plan with follow up on that in the near future.

Ms. Na'Taki Osborne Jelks, NEJAC Vice Chair, shared an update for the Water Infrastructure Working Group. She stated that this was a pretty big group and they met once. She stated that in terms of what was put forward in the 100-Days Letter, it was the beginning of the work for

this term. She stated that the workgroup reviewed the Water Infrastructure report that was delivered to EPA in 2019. She stated that the report predated her time on the NEJAC in terms of when that charge was given, but others may remember. She stated that the charge was given from EPA to the NEJAC, and The Office of Water gave the charge. She stated that the NEJAC responded to that charge with the reports in 2019. She explained that while the receipt of that report was acknowledged, there has not been any feedback from EPA on the reports to date. She stated that in reviewing that report, the working group decided that what's in that report is still very relevant today and those are things that still need to be addressed. She also noted that there were a few additional principles that the working group pulled out to elevate for this term.

Ms. Osborne Jelks stated that the first principles is the concept that water is a human right and from a governmental perspective, we think that it's very important that this remains paramount. She stated that coming back at the top of the list as centralized by which to look at work related to water. She noted that water is a human right. She stated that basically, if the EPA doesn't view water as a human right, then it may be difficult to accomplish the other goals that are important. She stated that water issues are issues that are affecting people across the country.

Ms. Osborne Jelks stated that the second principle is around being accountable, building public confidence and trust in regulations. She stated that it's been expressed that some people do not trust their drinking water and people are drinking bottled water as opposed to using their tap water because of mistrust. She stated that people are not trusting the regulations and they are not trusting the regulators. She stated that it appears that government regulators are, in many cases, responsible parties for not enforcing the regulations that are required to keep us all safe. She noted that this accountability piece is really important. She noted that some of this is mentioned in the Water Infrastructure Charge report in terms of the critical need for community engagement. She noted that part of the gap is ensuring that EPA steps up when local authorities or state regulators are not complying to what they should do. And so, we really need to see EPA fulfill its duty as the federal regulator providing oversight to what's happening at the sites' state and local levels to ensure environmental justice for all communities.

Ms. Osborne Jelks stated that the third principle is about prioritizing issues in environmental justice communities starting with prioritizing EJ communities who are in crisis. She stated that

there are a number of communities like Jackson, Mississippi, for instance, who have been in crisis around water just this year. She stated that Flint is still in crisis and Benton Harbor is in a crisis, and many others exist. She stated that the focus, priority, and resources should be on those communities that are most impacted where these crises are occurring. She also emphasized that it's imperative that the community be involved in the process.

Ms. Osborne Jelks stated that the final principle is around recognizing the impact of climate change. She stated that if you think about our municipal system's drinking water, wastewater, storm water infrastructure you have to understand how climate change is impacting this critical infrastructure in the communities. She stated that you have to look at both urban communities as well as rural communities that are impacted by things like inadequate access to drinking water as well as thinking about what's happening from a water quality standpoint. She noted that there are many ways that climate change is impacting water resources and, therefore, the ability of those water resources to meet the needs of the communities. She stated that looking at the impacts of climate change needs to be a priority as well. She stated that there are a number of solutions being discussed on the national scale and policies and programs and plans like Justice40 should be tied to climate change to safeguarding the water infrastructure.

Ms. Sylvia Orduno, NEJAC Chair, stated that there was a lot of work that went into the water charge report. She stated that in this workgroup, what needs updated are issues that are in the report that are very salient, but also the worsening or emerging issues that have occurred across the communities since the time of the report as well as other priorities to raise with the EPA?

Ms. Millie Piazza, NEJAC Member, reported on the NEPA Roll Backs Working Group. She stated that this group was just getting started, but the intention is to be vigilant about tracking any NEPA-related changes. She stated that the workgroup is planning to meet every other week until August 3rd. She stated that the workgroup wanted to gather community feedback about current concerns and challenges and learn and understand more of the needs. She stated that part of the work of the group is to track the lawsuits against the roll backs and understand the status of the roll backs, what is and isn't being addressed.

Ms. Piazza stated that the last area of focus for the group comes from a place as a practitioner.

She stated that her role at a regulatory agency is reviewing EISs, NEPA-related EISs frequently. She stated that the content, both the methods as well as the assumptions and the conclusions that are drawn from these analyses, are vast in scope and is boilerplate language. She stated that the workgroup is hoping to draft a letter to EPA Administrator Regan to talk about and open up the conversation on standardizing or strengthening environmental justice analyses. She stated that there are many incredible guidance documents from the EPA on this topic, but as a practitioner on the green, it is not apparent in practice. She stated that the workgroup would like to explore the opportunities to shore up the work and make it effective for the designed purpose.

Ms. Melissa McGee-Collier, NEJAC Member, reported for the Community Air Quality working group. She stated that the workgroup met yesterday and had an opportunity to meet Fred Jenkins. She stated that the workgroup talked about next steps forward which is working with Fred and George to set up a meeting with the Office of Air and Radiation to get a clear, definitive idea of the initiatives that are in place to address community air quality? She stated that part of this workgroup effort will be looking at how state environmental agencies collect air quality data. She explained that most states, if not all states, have some type of air quality network for monitoring and that EPA collects that data. She stated that oftentimes, these monitors are not located in nearby communities but miles away. She stated that, therefore, the data is not actually representative of what that fence line community is experiencing. She stated that the workgroup will look into how EPA is currently filling that gap if at all.

Ms. McGee-Collier stated that in addition, there are several past NEJAC reports out there and the workgroup is going to review the reports related to air quality and monitoring and construct a comprehensive final report that pulls together recommendations presented in the past and present them again in a wholistic document that not only addresses what EPA is currently doing, but where the gaps are and how those gaps can be filled.

Dr. April Baptiste, NEJAC Member, reported on the Finance and Justice40 workgroup. She stated that the group plans on meeting biweekly up until August 3rd. She stated that the workgroup really would like to start by reviewing some of the relevant documents that pertain to Justice40 Initiative. She stated that there are some key documents that range from the executive order itself to some white papers, published by Dr. Wilson, related to creating tools that are

environmental justice indicators. She noted that there is also the Center for American Progress recommendations on Justice40 as well as the WHEJAC progress reports. She stated that the workgroup wants to dig deep into those to understand their recommendations and see if there are any recommendations that should be elevated and leveraged in the document that is produced.

Dr. Baptiste stated that the third thing was leveraging the EJSCREEN tool. She stated that while the WHEJAC is working on the new climate justice screening tool, it's really important to leverage the EJSCREEN tool itself given that this is a tool that the EPA have. She stated that the hope is to meet with relevant EPA staff regarding the EJSCREEN, and to draft a letter to the administration. She stated that today there were comments indicating the need for capacity building. She stated that this will need to be worked into discussions, not just financial but also technical capacity.

Dr. Sacoby Wilson, NEJAC Member, stated that some opportunities have become available because of the work with WHEJAC and looking at the bigger picture of the federal family and those financial investments and tracking opportunities within EPA. He stated that the NEJAC wants to prioritize those things and in general checking what are the programmatic dollars that the EPA has. He noted looking at the dollars that would come related to funds and supplemental environmental projects. He stated that there are new budgets and monies related to grant mechanisms. He stated that there are a number of things that have been put in the budget related to the EPA that fits within the bucket of this Justice40.

Mr. Jerome Shabazz, NEJAC Member, stated that interagency interactions were explored, particularly the work within WHEJAC. He stated that there is a need to watch closely the allocation of resources and hold individuals accountable to making sure the communities are benefitting from the resources. getting some of these resources. He noted the importance of making sure the decision making has tracking tools associated and agreed that the EJSCREEN is a great start.

Dr. Na'Taki Osborne Jelks, NEJAC Vice Chair, thanked the working groups for their summaries and asked if there were any additional comments from council members on the workgroup reports.

Ms. Sylvia Orduno, NEJAC Chair, encouraged the working groups to think what is being heard from the administration around commitments to environmental justice, racial justice, climate justice and really look at where recommendations would be able to help move the needle and look at where there are opportunities to build the equity that is needed. She stated that racial justice calls for actions that have been heard for more than a year and it is not a moment past and gone. She stated that this is the opportunity to make these fundamental, systemic changes in the course of the work as the NEJAC advisory to the EPA. She challenged the Council to be bold by way of some of the recommendations and come forward to help shift the conversations and priorities and direct needed resources.

Ms. Orduno stated that in the working groups, and especially in consultation with EPA staff coordinators, the workgroup should brainstorm on how to seek additional participation from the other 20 FACA groups under the EPA. She stated that there are a lot of conversations happening across the EPA about what is environmental justice. She posed the question of how can the NEJAC learn more about it and what can the NEJAC do to facilitate conversations with the WHEJAC.

Dr. Sacoby Wilson, NEJAC Member, added that in addition to getting the dollars into the community with the screening tools, it is important to make sure mechanisms are in place that make sure the communities who are the community development corporations, the black-owned businesses, the small businesses, the lifeblood of those communities are also given those dollars to do the work. He stated that without that, there will be a huge problem with advanced and economic empowerment for environmental climate justice.

Mr. Michael Tilchin, NEJAC Vice Chair, stated that with the FY 22 budget, the American Rescue Plan and some version of an infrastructure plan through the American Jobs Plan, there is no better time to be doing this work. He stated that there will almost be a demand for specificity on productive things to do with funding. He concurred with Sylvia in that the NEJAC can be both bold and specific about things that need to be done. He stated that not every single thing suggested will be embraced and not every single thing that is embraced will be funded at an acceptable level. He noted, however, that the bold, specific input is needed in helping the

agency and the federal government as a whole.

Mr. Tilchin also stated that engagement with EPA is really important. He stated that from his experience there is not complete agreement but a lot of alignment with groups like the professional association that deals with wastewater, could be helpful. He stated that they could also be a source of information in groups that the workgroups engage with for fact finding and recommendations.

Dr. April Baptiste, NEJAC Member, stated that something to look at would be the risk management plan feature that was just added to EJSCREEN within the last year. She noted that it was mentioned that making sure that the plans are done in a way to protect fence line communities is important.

Ms. Jacqueline Shirley, NEJAC Member, posed the question asking if EPA ever scheduled a meeting for the various committees to update EPA on changes and projects et cetera. She also asked if there is a standing NEJAC committee for various projects or focus on specifics like water issues, which will always be present.

Ms. Karen Martin, DFO, stated regarding the first question about a meeting of all the chairs of FACAs at EPA, it has not happened during her tenor on federal advisory committee. She agreed that it was a great idea. She stated that it is something that NEJAC can initiate and see if this can happen. She stated that there has been discussion amongst those on the steering committee and in some other workgroup meetings about working with some of the other federal advisory committees. She stated that there has also been other members of federal advisory committees to join in when working on other charges. She noted that individuals from EFAB worked with NEJAC on the water charge and state and local governments have been approached previously to work with NEJAC. She stated that the Council can work through the FACA Office at EPA to start making those connections. She noted that this is also in line with the 100-day letter recommendation to the administrator regarding coordination and collaboration with the WHEJAC.

Ms. Martin made a clarification regarding the second question on "subcommittee" and "standing

committee." She stated that under FACA it needs to be clear in what is being said and established. She stated that the term workgroups and working groups have been used interchangeably. She stated as not to confuse the public, working group is not an official term that is used under FACA. She stated that under FACA there is the larger body, the NEJAC body, the NEJAC Council, which comprise of the 29 Council members. She noted that under that, there are subcommittees that are allowed to have workgroups and that there are no formal subcommittees on the NEJAC at this point. She stated that there has been some discussion in the Office of Environmental Justice on whether there is a need to establish some official subcommittees, which would be a smaller version of a NEJAC. She explained that the subcommittees would follow the same public meeting process used by the NEJAC.. She stated that the subcommittee would have to still go through the full NEJAC to present recommendations to the EPA.

Ms. Martin explained that the workgroup process is used because it allows the ability to work on issues before presenting the information to the public. She stated that the current workgroup process can be long-term and productive in forwarding recommendations to the administrator. She stated that workgroups are very productive for NEJAC generated issues and things heard in public comment that are still pending. She stated that the workgroups can also be used when the EPA issues a charge. She gave the example of the Superfund Task Force report that was recently finished. She noted that the workgroups serve as a way to get work done and submit recommendations to the NEJAC for final approval and send to the EPA Administrator. .

Mr. Fred Jenkins, Incoming Designated Federal Officer for NEJAC and shared that his role was to basically maintain and keep the momentum going. He stated that he's very much focused on making sure that all the established workgroups are as productive as possible. He stated that he's still transitioning in but have already gotten involved.

Ms. Sylvia Orduno, NEJAC Chair, thanked Karen and Fred for the clarification and input. She referred back to the presentation about the National Recycling Strategy. She stated that council members indicated that they would send individual comments. She asked if council members would be open to sending a formal response from the entire body.

Mr. Michael Tilchin, NEJAC Vice Chair, stated that the timeframe seems challenging given the other things that the workgroups are working on. He stated that he is inclined to have a NEJAC formal response, but the timetable is not ideal.

Ms. Sylvia Orduno, NEJAC Chair, stated that she did note the councilmembers that were really passionate speakers during the presentation being Jan, Richard, Karen, Sacoby, Jacqueline, Aya, Jerome, and Cemelli and they could focus on a letter.

Ms. Karen Martin, DFO, stated that there would not be time to do a formal letter from the NEJAC as it would have to be finalized in a public meeting and we will need to give a 15-day notice of the meeting. She stated that as a body the NEJAC did provide input today during the conversations and with the presenters. She stated that individuals still have the opportunity to provide additional feedback with additional engagement down the road.

Ms. Sylvia Orduno, NEJAC Chair, asked the Council if there was anything else, they wanted to raise or highlight. She also stated that the Water Charge group could take the water issues to see how they could incorporate those into the work they're doing. She stated that for more specific issues, like that mentioned from Nayyirah out of Flint, follow up can be done with OEJ for getting help for the community. She also asked if any workgroup could incorporate some of the issues mentioned around TSCA like the chemical disaster rule, the Limetree Oil Refinery, the Superfund site near Denver, and the matter that was raised related to health consequences, particularly among indigenous peoples, maternal reproductive health, and disproportionately impacted communities.

Mr. Michael Tilchin, NEJAC Vice Chair, stated that the I-70/Vasquez Boulevard comments is a Superfund issue and the workgroup talked about a Superfund 2.0 effort to reengage once EPA has sufficient time to digest the report submitted in May. He stated that this issue can be linked to several of the recommendations that were addressed.

Dr. Sacoby Wilson, NEJAC Member, stated that the Saint Croix piece can be pulled into the air quality workgroup.

Ms. Karen Martin, DFO, stated that if the Council feels that an issue mentioned in the public comments does not connect to one of the workgroups, the Council can ask OEJ to follow up with the regions where these issues exist and give a report out at the next meeting. She stated that the regions do attend these meetings and can do some follow-up with the public commenters.

Mr. Richard Moore, NEJAC Member, asked if the Council agreed to the request to send a letter.

Ms. Sylvia Orduno, NEJAC Chair, asked if the Council would be okay with adding the issue to existing 100-Day letter, in which the Council agreed. She stated that the issues around the disproportionate impacts, communities near extraction facilities, and maternal reproductive health, and TSCA, the NEJAC can request be taken up by OEJ.

Ms. Jacqueline Shirley, NEJAC Member, asked that NEJAC members personally and within their professional organizations support Senator Duckworth's EJ bill into becoming law. She stated that her organization is already going through channels of advocacy and reaching out to Senator Duckworth's staff to see what can be done an organization as RCAC and as a network.

Ms. Sylvia Orduno, NEJAC Chair, closed out the discussion noting the plans in place around the public comment follow ups and the workgroups plans for meetings in the next few weeks. She also asked that any council member interested in joining one of the smaller workgroups to contact the chair of that workgroup or George.

CLOSING REMARKS AND ADJOURN

Ms. Karen Martin, DFO, closed out the meeting thanking everyone and stating that she will miss working with everyone but will still be in the Office of Environmental Justice and working with the WHEJAC.

MEETING ATTENDEES - APPENDIX A

NEJAC – June 17, 2021 Attendee List		
First Name	Last Name	Organization
Krishana	Abraham-Petrie	Massachusetts Office of Technical Assistance
Allison	Acevedo	PA Department of Environmental Protection
ASTRIKA	ADAMS	Office of Advocacy
Rebecca	Adler Miserendino	Lewis-burke associates
Onema	Adojoh	Lincoln University
Nadia	Akbar	NJDEP
Rodolfo	Alanis	IEPA
Kris	Allen	Eurofins Frontier Global Sciences
Emily	Alvarez	FEMA R8
Shanika	Amarakoon	ERG
Kiri	Anderer	US EPA
Peggy	Anthony	CCOM and Other
Jan-Michael	Archer	University of Maryland School of Public Health
Yvette	Arellano	Fenceline Watch
Darla	Arians	Boulder County Resource Conservation Division
Amanda	Aspatore	National Association of Clean Water Agencies
Anita	Atakitlig	Traditional Council of Togiak
Menaka	Atree	NC DEQ
Alan	Bacock	USEPA Region 9
Louis	Baer	Portland Cement Association
Anna	Bahle	EPA
Sarah	Bailey	Bridges Into the Future
Joseph	Bailey	EPA
Sandra	Baird	MassDEP
Olivia	Balandran	US EPA Region 6
Lucienne	Banning (she/her)	Washington State Department of Ecology
Lakendra	Barajas	Earthjustice
Edlynzia	Barnes	U.S. EPA
Nikki	Bass	USEPA
Regine	Beauboeuf	HNTB
Kathryn	Becker	NM Environment Dept.
Patrick	Beckley	US EPA
Samantha	Beers	US EPA
Kara	Belle	US EPA Region 5 -
Kent	Benjamin	US EPA
Agatha	Benjamin	USEPA
Karen	Bennett	LBBS

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Denise	Bennett	Louisiana Department of Environmental Quality
Genie	Bey	DOEE
Brittany	Bianco	FDOT
Michael	Bickel	Ecolab
Jessica	Bielecki	NRC
Jerome	Blackman	US EPA
Michael	Blair	Innovate Inc
Juliet	Bochicchio	FTA
Meg	Bommarito	WA State Department of Ecology
Marcella	Bondie	Center for Neighborhood Technology
Vickie	Boothe	350 New Orleans
P. Qasimah	Boston	Tallahassee food network
Pilar	Botana	Boston University, School of Public Health
Jennifer	Boyle	DEQ
Eletha	Brady-Roberts	EPA
John	Brakeall	Pennsylvania Dept. of Environmental Protection
Marvin	Brown	Earthjustice
Lewis	Brown	Adams/Alix/Davidson Science Consultants
James	Brunswik	DNREC
Sharunda	Buchanan	CDC/ATSDR
Stephen	Buckley	OpenGovMetrics.com
Omari	Burrell	EPA Region 6
Mara Elana	Burstein	City of Albuquerque
Stan	Buzzelle	US EPA
John	Byrd	Miller/Wenhold Capitol Strategies
Darlene	Byrd	US EPA
Helen	Campbell	EPA
Doug	Campbell	None
Brian	Campbell	Virginia Department of Environmental Quality
Karen	Campblin	ktcPLAN.com
Morgan	Capilla	EPA
Susan	Casey	Maryland Department of the Environment
Sophie	Cash	NA
Ester	Ceja	Idaho Transportation Department
Melissa	Cervantes	Latinxs & the Environment
Susan	Chadwick	Save Buffalo Bayou
Elizabeth	Chan	US EPA
Zoie	Chang	EPA
Fawkes	Char	Minnesota Pollution Control Agency

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Donna	Chavis	Friends of the Earth
Megan	Christian	U.S. EPA
Clement	Chung	Monroe County Department of Environmental Services
Charlette	Clark	EJA Alumni Association
Janetta	Coats	U.S. EPA REGION 6
Deborah	Cohen	USEPA
Tokesha	Collins-Wright	Louisiana Chemical Association
Julie	Congdon	US Environmental Protection Agency Region 10
Jasmin	Contreras	EPA
Dallas	Conyers	Healthy4Purpose
Czarina	Cooper	ORISE/EPA
Theron	Cooper	Louisiana Chemical Association
Karen	Craver	NH Department of Environmental Services
Kelly	Crawford	DC Department of Energy and Environment
Bria	Crawford	EPA
Brandi	Crawford-Johnson	EJ Advocate
Heather	Croshaw	St. Croix Environmental Association (St. Croix, USVI)
Abigail	Cruz	U.S. EPA
Hope	Cupit	SERCAP, INC.
Meg	Curran	Conservation Law Foundation
Shirley	Dao	Student
Shelly	Dawson	registering as a private citizen, work for Federal Govt
Viktoriiia	De Las Casas	Troutman Pepper
Kathleen	Deener	USEPA-ORD
Rafael	Deleon	Environmental Protection Agency
Hailey	Deres	Institute for Market Transformation
Pauline	DeVose	US EPA
Laura	Diaz	The Educator Collective for Environmental Justice
Amy	Dinn	Lone Star Legal Aid
Jenna	Dodson	WVU
Valerie	Dooling	US EPA
Benjamin	Dover	Hemi club
David	Dow	Not Applicable
Lori	Dowil	Corteva
Melinda	Downing	U.S. Department of Energy
Kim	Drake	MDE
Maggie	Duncan-Augustt	USDOT
Wayne	Dupuis	Fond du lac band of Lake Superior chippewa
Nicki	E Alexander	U.S. EPA - Region 2

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Sarah	Edwards	Cook County
Fleming	El-Amin	FHWA
Tania	Ellersick	USDA Forest Service
Caroline	Emmerson	US EPA
Marianne	Engelman-Lado	EPA
Marcus H	England	FAA
Lena	Epps-Price	US EPA
Michael	Esealuka	Healthy Gulf
Monica	Espinosa	EPA Region 7
Sydney	Evans	Environmental Working Group
Jennifer	Ewald	DOI BOEM
Carole	Excell	WRI
Sandra	Faiman-Silva	Coalition for Social Justice
Emily	Farr	NOAA Fisheries
Ericka	Farrell	EPA
Sonja	Favors	ADEM
Stacey	Feindt	Fredericksburg Area Metropolitan Planning Organization
Cynthia	Ferguson	DOJ/ENRD
Nicolette	Fertakis	EPA
Zaida	Figuroa	EPA
Catherine	Fleming	Project Sweetie Pie
Michael	Formica	NPPC
Tiffany	Foster	Tennessee Valley Authority
Sheila	Frace	USEPA/Office of Water
Stafford	Frank	Retired
Lisa	Frede	CICI
Amyl	Freeberg	Willamette River Advocacy Group
Tamara	Freeman	EPA R7
Tamara	Freeman	EPA R7
Robert	Fronczak	Association of American Railroads
Kim	Gaddy	South Ward Environmental Alliance
Antonio	Garcia	EPA Region 5
Jasmine	Garland	National Renewable Energy Laboratory (NREL)
Harrison	Garrett	FDOT
DEMI	GARY	Oak Ridge Institute
Byron	Gary	LMAPCD
Randall	Gee	US EPA Region 6
Andrew	Geller	US EPA
Andrew	George	UNC

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Emily	Geralds	Iowa Department of Transportation
Laurie	Gharis	TCEQ
Nahal	Ghogaie	SF Bay Conservation and Development Commission
LINDA	GILES	Transcription, Etc. LLC
Michael	Goldstein	The Goldstein Environmental Law Firm, P.A.
Vivian	Gomez	Private citizen
Victoria	Gonzalez	SCF
Aaron	Goode	FNHGF
Amelia	Gooding	Illinois Environmental Regulatory Group
SYLVIA	GRAHAM	WA State Department of Ecology
Lakeisha	Grant	US EPA
Kevin	Greaney	EPA
Wendy	Greene	BHE Renewables
Nancy	Griffeth	NJ Department of Environmental Protection Environmental Justice Advisory Council
Tyneshia	Griffin	New Virginia Majority
Elisabeth	Grinspoon	USDA Forest Service
Alex	Guillen	POLITICO
Christina	Guthrie	US EPA
Brandi	Hall	Arizona Department of Transportation
Erica	Hall	Suncoast Sierra Club
Christine	Haman	Trinity Consultants
Stephanie	Hammonds	WVDEP-DAQ
Anita	Harrington	Detroit BSEED-EA
Pamela	Harris	Maryland Department of the Environment
Jill	Harrison	University of Colorado Boulder
Justin	Hart	MWRD
Maureen	Hartwell	EPA
Jackie	Harwood	U.S. EPA
Blair	Hassett	EPA
Ryan	Hathaway	Department of Interior
Amanda	Hauff	US EPA
Declan	Hayes	U.S. EPA
Debbie	Hays	Sims Metal Management
Jill	Heaps	Earthjustice
Holly	Henderson	Duke Energy
Diane	Henshel	Indiana University
Krystal	Hepburn	Sustainable Workplace Alliance
Alane	Herr	Illinois EPA

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Stephanie	Herron	EJHA
Nalleli	Hidalgo	TEJAS
Kimberly	Higgins	Volpe Center
Megan	Hillyard	WA Dept of Ecology
Ryan	Holifield	University of Wisconsin-Milwaukee
Scott	Holladay	University of Tennessee
Marcus	Holmes	EPA
Emily	Horton	WA DOH
Emily	Horton	State of Washington Department of Health
Jay	Hoskins	MSD
Renee	Hoyos	Virginia Dept. of Environmental Quality
Christina	Hylton	Institute of Education and Regenerative Communities
Robin	Jacobs	EPA
Dulmini	Jayawardana	University of Wisconsin Milwaukee
Tyler	Jenkins	Senate EPW
Shannon	Jewell	EPA-OPP
Hannah	Jewess	USEPA
Aislinn	Johns	Department of Environmental Quality
Bonita	Johnson	US EPA
Doris	Johnson	DEEP
Sabrina	Johnson	US EPA
Martina	Johnson	DNREC
Cassandra	Johnson	MDEQ
Morgan	Johnson	Waterkeepers Chesapeake
Ingria	Jones	Washington State Department of Ecology
Craig	Jones	Oglethorpe Power
Simone	Jones	Sidley Austin
Shamira	Jones-Brown	Adams, Alix, and Davidson Science Consulting
Dominique	Joseph	EPA
Court Reporter	Joseph Garry	Neal R. Gross Court Reporters
Sean	Joyner	U.S. Department of Housing and Urban Development
LaDonn	Kaylor	Idaho Dept of Environmental Quality
Judith	Kendall	EPA
Erin	Kendle	MARAD
Andrew	Kidd-Cooper	VTDEC
Steph	Kim	EPA
Toshia	King	OLEM/ORCR
John	King	WVDEP

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Marva	King	EPA Retiree
John	Kinsman	Edison Electric Institute
Mary	Knight	Private
Michele	Knorr	USEPA
Sarah	Koepfel	DHS
Kevin	Koonce	Vinyl Institute
Carolyn	Koroa	Tennessee Valley Authority
Crystal	Kotowski-Edmunds	EPA
Renee	Kramer	NCDEQ
Missy	Kroninger	Syracuse University College of Law
Katie	Kruse	EGLE
Lucie	Kubasova	WA Dept. of Ecology
Amy	Kuriakose	Citizens' Environmental Coalition
Coz	Lam	Choices Interlinking Inc-
Kim	Lambert	U.S. Fish and Wildlife Service
Shahra	Lambert	NASA
Kim	Landsbergen	Antioch College
Emily	Lane	University of Central Arkansas
Gena	Larson	WI DNR
David	Lary	University of Texas at Dallas
Christine	Leary	Rutgers University
Charles	Lee	EPA
Rochelle	Lee	Native Green
Maddie	Lee	Center for Climate & Energy Solutions
Rachael	Lehman	I-70/Vasquez Blvd Superfund CAG
Janelle	Lemen	NRECA
Sheila	Lewis	USEPA/Office of Environmental Justice
Anna	Lising	Washington State Governor's Office
C	Liv	HHS
Terri	Lomax	State of Alaska
Keisha	Long	SC DHEC
Teresa	Lopez	City of Woodland
Paulina	Lopez-Santos	ECOS
Susie	Lorden	HHS OCR
Casey	Luckett Snyder	US EPA
Nancy	Lui	DOE
Tai	Lung	EPA
Amy	Lynn	EPA
Latasha	Lyte	USDA-FS

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Olivia	M	LSU
Megan	MacClellan	Washington State Department of Ecology
Lucia	Macias	Keep Laredo Beautiful
Kristi	Macklin	Federal aviation Administration
Jim	Macy	department of Environment and Energy
David	Magdangal	US EPA
Debbie	Mans	TWENTYTWENTY public affairs
Laura	Mansfield	Bureau of Ocean Energy Management
Peter	Marinelli	None
Wilbourne	Markham	TVA
David	Marron	American Waterways Operators
Julian	Marshall	University of Washington
John	Marshall	Independent
Marilynn	Marsh-Robinson	EDF
Angie	Martin	Heritage Environmental Services
Brendan	Mascarenhas	American Chemistry Council
Kimi	Matsumoto	US EPA
Laurie	Matthews	Morgan Lewis & Bockius
Eileen	Mayer	US EPA
Silvio	Mazzella Jr.	Silviom711.info
Mary	McCarron	Ohio EPA
Liz	McCarthy	EPA
Jennifer	McCord	ADEM
Mary	McCullough	US EPA
Caitlin	McHale	National Mining Association
Jennifer	McKay	Tip of the Mitt Watershed Council
Benjamin	McKenzie	CDC/ ATSDR
Lucas	McKinney	US EPA, Region 6, LCRD-RC
April	McLean-McCoy	FTA
Amanda	McMickle	Compass Rose
Cynthia	McOliver	US EPA
Ameesha	Mehta-Sampath	US EPA Region 2
Sharlett	Mena	Washington State Department of Ecology
Jean	Mendoza	Friends of Toppenish Creek
Stephanie	Mercado	16th St Community Health Centers
Viola	Mercer	UNT Dallas College of Law
Danielle	Mercurio	VNF
Karen	Merritt	A4 Community Health Collaborative
Cassandra	Meyer	MPCA

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Amy	Miller	US EPA Region 9
Ruth	Miller	Native Movement
Igalious	Mills	Port Arthur NAACP Chapter / Mills Consulting
Dorlisa	Minnick	Shippensburg University of Pennsylvania
Gabrielle	Minton	U.S. EPA
Anjuliee	Mittelman	USDOT Volpe Center
Erin	Moffet	Florida Department of Agriculture and Consumer Services
Alessandro	Molina	EPA
Lucy	Molina	Self
Chris	Moore	Eastman Chemical
Regina	Morgan	NHTSA
Terrence	Mosley	DOE
John	Mueller	Not declared
Holly	Myers	Ecology
Anita	Naber	US NRC
Brittney	Nadler	US EPA
Olga	Naidenko	Environmental Working Group
Julie	Narimatsu	USEPA
Daria	Neal	U.S. Dept. of Justice
Kay	Nelson	Northwest Indiana Forum
Carolyn	Nelson	DOT-FHWA
Loan	Nguyen	US EPA
Nicole	Noelliste	Sidley Austin LLP
Elder Jacqueline V	Norris	WomanistEnviro Social Justice Climate Marginalized Community Collaborative
Shawn	O'Brien	Troutman Pepper
Tristan	Odekirk	USEPA
OMONIGHO	OIYEMHONLAN	Earthjustice
Shaina	Oliver	Independent
Grace	Olscamp	The Healthy Environment Alliance of Utah
Danielle	O'Neil	US EPA
Ora	Ora Giles	Transcription, Etc., LLC
Liam Edmund	O'Rourke	Tennessee Health
Uma	Outka	Univ. of Kansas School of Law
Riche	Outlaw	NJ DEP
Sofia	Owen	Alternatives for Community & Environment (ACE)
David	Padgett	Tennessee State University
Marla	Painter	Mountain View Community Action
Ramon	Palencia-Calvo	Chispa Maryland

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Andrew	Pappas	State of Indiana - Department of Health
Taylor	Parks	Florida Department of Environmental Protection
Juan	Parras	Texas Environmental Justice Advocacy Services
Ana	Parras	Texas Environmental Justice Advocacy Services
Shivani	Patel	NJDOT
Tony	Pathyil	Citizen
Kimberly	Patrick	EPA
Kaili	Patterson	LACC, LLC US
Jana	Pellusch	Steelworkers Organization of Active Retirees
Daniel	Pena	Minnesota Department of Health
Dionicio	Pena	DP Consulting
Jennifer	Pepson Elwood	N/a
Idalia	Perez	USEPA Region 9
Edith	Pestana	CTDEEP
Carolyn	Peters	Concern Citizens Of Mossville
Cynthia	Peurifoy	Retired
Victoria	Phaneuf	BLM
Alli	Phillips	EPA
Rev. Edward	Pinkney	Black Autonomy Community Network Organization (BANCO)
Jamie	Piziali	USEPA
Jonna	Polk	EPA
Amir	Poorfakhraei	East-West Gateway Council of Governments
Natalie	Popovich	Berkeley National Lab
Jasmine	Powell	EcoWomen
Chris	Pressnall	Illinois EPA
Lindell	Price	General public
Kimeka	Price	U.S EPA Region 6
Katherine	Pruitt	American Lung Association
Celeste	Quiralte	ExxonMobil
Stephanie	Rambo	Tejon Indian Tribe
Karen	Randolph	District Department of Transportation
Elise	Rasmussen	Washington State Department of Health
Dawn	Reeves	Inside EPA
Sean	Reilly	E&E News
Jongeun	Rhee	NCI
Steven	Rice	NC DEQ
Gabriele	Richardson	CDC
Boris	Ricks	CSUN

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Delia	Ridge Creamer	Center for Biological Diversity
Rachelle	Riegerix	EPA
Divinia	Ries	Michigan Environ, Great Lakes and Energy
Jerry	Riggs	ENERCON
Andrew	Rippert	WA Ecology
Kaylene	Ritter	Abt Associates
Leslie	Ritts	NEDA/CAP
Kate	Robb	American Public Health Association
Victoria	Robinson	U.S. EPA
Jim	Roewer	USWAG
Tahereh	Rogers	OGE Energy
Elton	Rogozi	Institute of Public Health Albania
Theresa	Romanosky	Association of American Railroads
Ian	Rosenblum	DHS S&T
Ilana	Rubin	National Wildlife Federation
Linda	Rudolph	PHI
Katrinka	Ruk	Council of Business & Industries
Amelia	Samaras	PHMSA
Cynthia	Sanchez	EPA
Carrie	Sargeant	NJDEP
Devin	Scherer	Department of the Air Force
Rachel	Schneider	CBP
Lily	Schwartz	The Recycling Partnership
Dean	Scott	Bloomberg
Elizabeth	Scott	Elizabeth Scott Consulting
Jocelyn	Scott	US EPA
Isabel G.	Segarra Trevino	Harris County Attorney
Sophia	Serda	EPA Region 9
Emily	Serveiss	Intern with OECA/OAP
Jeff	Severin	WSU Environmental Finance Center
Nayyirah	Shariff	Flint Rising
Rebecca	Shelton	Appalachian Citizens' Law Center (ACLC)
Natalie	Shepp	Pima County Department of Environmental Quality
Tracy	Sheppard	US EPA
Peter	Shields	ICF
Gina	Shirey	Alaska Department of Environmental Conservation
Paul	Shoemaker	Boston Public Health Commission
Debra	Shore	Metropolitan Water Reclamation District
Matthew	Silverman	USDOJ

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Matthew	Simon	US DOT Volpe Center
Brad	Sims	Exxon Mobil Corporation
Karla	Sims	Arkansas Department of Transportation (ARDOT)
Hari	Singh	Indian Horizon of Florida
Carl	Sivels	EPA
Robert	Skoglund	Covestro
Matt	Small	EPA Region 9
Bailey	Smith	U.S. EPA
Rachel	Smith	Rural Community Assistance Corporation
Gavin	Smith	Civilian Exposure
Allison	Smith	Louisville Metro Government
Cami	Sockow	Georgia Southern University
Allie	Soileau	Bayou City Waterkeeper
Jennifer	Sokolove	Water Foundation
Elizabeth	Soychak	Coalition Against Death Alley
Ramsey	Sprague	Mobile Environmental Justice Action Coalition
Shiv	Srivastava	Fenceline Watch
Joanna	Stancil	USDA/FS
Erin	Stanforth	Mecklenburg County
Laura	Stargel	EPA
Jill	Stark	FHWA
Margaret	Stebbins	US EPA Region 4
Abbey	Stockwell	Ecology
Tasha	Stoiber	EWG
David	Storms	U.S. Department of HUD
Gregory	Suber	Nuclear Regulatory Commission
Katy	Super	EJHA
Katie	Surma	Inside Climate News
Tamia	Sutherland	Holland & Knight
Elyse	Sutkus	EPA
Robina	Suwol	California Safe Schools
Lina	Takahashi	EPA
Sandra	Talley	NRC
Lauren	Tamboer	WA Dept. of Ecology
Erin	Tanimura	EPA
Kerene	Tayloe	Na
Andrew	Taylor	EPA Region 3
Rachel	Tennis	Volkswagen Group of America, Inc.
Jessica	Terlikowski	City of Portland

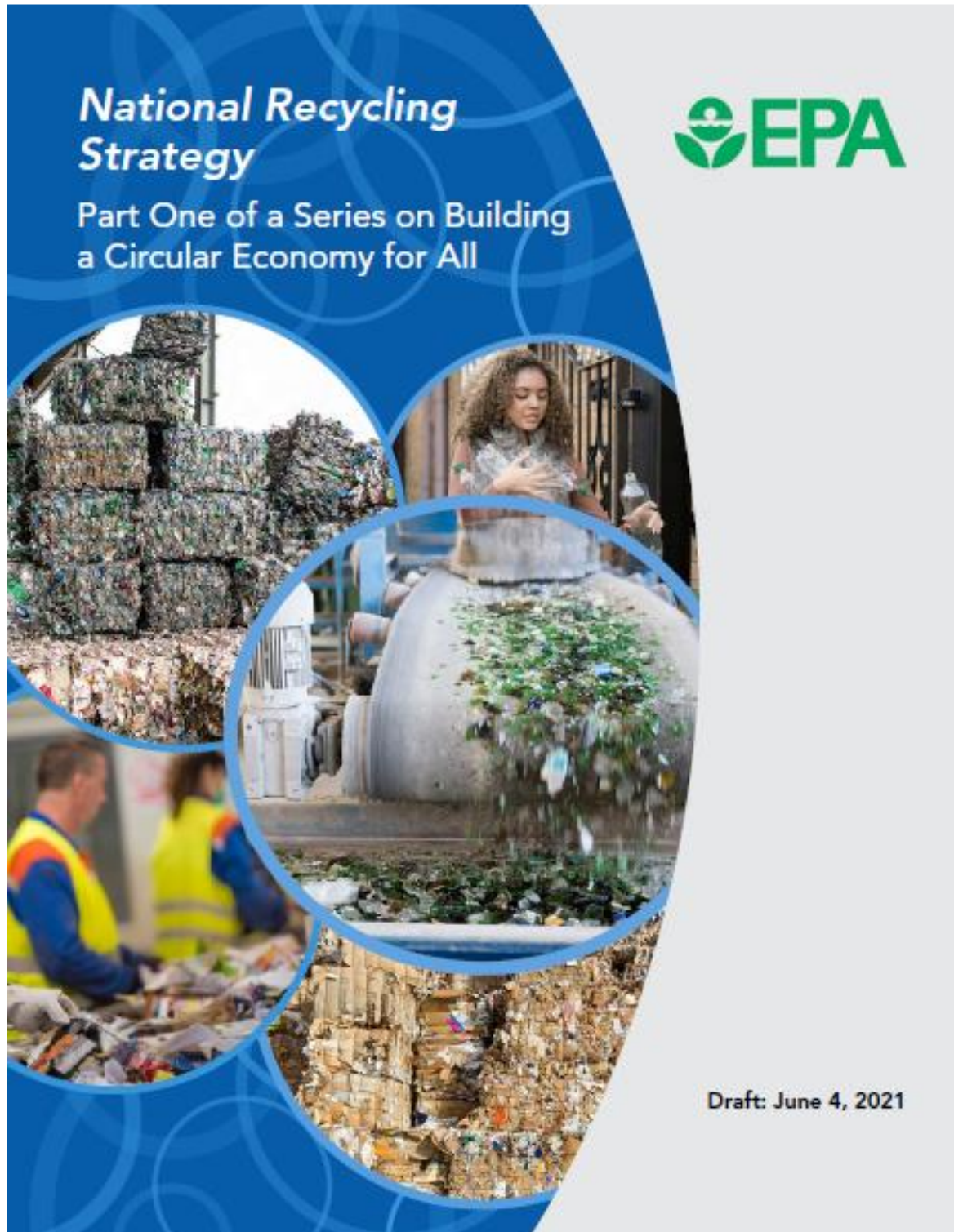
NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Kimberly	Terrell	Tulane University Environmental Law Clinic
Brigette	Thomas	ICF
Tami	Thomas-Burton	EPA - R4
Kevin	Thompson	XOM
Emma	Tome	California Air Resources Board
Kristina	Torres	US EPA
Allen	Townsend	University of Virginia
Denise	Trabbic-Pointer	Sierra Club - Michigan Chapter
Betsy	Tracy	Federal Highway Administration
Karen	Traeger	LSS
Darin	Traff	NA
Kathy	Triantafillou	EPA
Jennifer	Tribble	TDEC
Michael	Troyer	US EPA
Anna	Truszczynski	GA EPD
Kim	Tucker-Billingslea	GM
Chris	Turner	Smithsonian
Hannah	Twitchell	HK Environmental LLC
William	Twomey	U.S. EPA
Uloma	Uche	Environmental Working Group
Julie	Ulrich	The Nature Conservancy
Liz	Upchurch	TVA
Cristina	Valderrama	EPA - OTAQ
Carmen	ValDez	HEAL Utah
Gloria	Vaughn	EPA
Marie	Venner	Businesses for a Livable Climate
Zephelline	Villalobos	Brown University
Valerie	Vines	EPA
Travis	Voyles	Senate EPW
Erin	Wagoner	Louisville MSD
Tiffany	Wallace	USDA/FPAC
Meghan	Walsh	USDA
Linsey	Walsh	U.S. EPA
Alan	Walts	EPA Region 5
Stacy	Webster-Wharton	Bonneville Power Admin
Susanna	Wegner	US EPA
Kimi	Wei	The Wei LLC
Katy	Weil	Metro Parks and Nature
Venus	Welch-White	EPA

NEJAC – June 17, 2021 Attendee List

First Name	Last Name	Organization
Michael	Wenstrom	Region 8 USEPA
Catherine	Werner	City of St Louis
Kat	West	Skeo Solutions
Brittany	Whited	DOEE
Chris	Whitehead	ESI
Chad	Whiteman	U.S. Chamber of Commerce
Siobhan	Whitlock	EPA Region 4
Wendi	Wilkes	Association of State Drinking Water Administrators (ASDWA)
Laura	Williams	Baker Botts
Stephanie	Williams	Maryland Department of the Environment
Jane	Williams	California Communities Against Toxics
Dana	Williamson	EPA
Liz	Williamson	WM
Holly	Wilson	EPA
Pamela	Winston	HHS
Nathan	Wittstruck	U.S. EPA
Michael	Woodman	Maryland Department of the Environment
Claire	Woods	Greenfield Environmental Multistate Trust LLC
Kyra	Woods	Member of the Public
Rhonda	Wright	U.S. EPA
Carolyn	Yee	California Environmental Protection Agency, Department of Toxic Substances Control
Naomi	Yoder	Healthy Gulf
Victor	Zertuche	US EPA

**NATIONAL RECYCLING STRATEGY PART 1 OF A SERIES ON BUILDING A
CIRCULAR ECONOMY FOR ALL - APPENDIX B**





DRAFT: SUBJECT TO CHANGE

A Letter from EPA Administrator Michael S. Regan

Introducing the *National Recycling Strategy*

I am excited to unveil a bold, ambitious vision to reduce climate impacts from materials, stand up for justice and equity, protect human health and the environment, and create vital U.S. jobs. We have incorporated extensive feedback on the draft national recycling strategy, and while this strategy focuses on recycling, we are broadening our vision to include the full impacts of materials. Recycling alone is simply not enough. We need a transformative vision for our waste management system. That is why we are proud to release the expanded *National Recycling Strategy* as the first part of a series on building a circular economy for all (*the 2021 Strategy*).

We know from eminent scientists on the International Resource Panel that natural resource extraction and processing make up about half of all global greenhouse gas (GHG) emissions. In 2019, the Ellen MacArthur Foundation reported that applying circular economy strategies in five key materials (cement, aluminum, steel, plastics, and food) can achieve reductions in GHG emissions equal to cutting current emissions from all global transport to zero. We must be more innovative in how we design and use materials in this country and around the world.

Further, we recognize the burden that living near waste and waste-related facilities can have on communities when waste is not properly managed, which can lead to higher levels of chronic health issues. Communities whose residents are predominantly persons of color, Indigenous, or low-income continue to be disproportionately impacted by high pollution levels, resulting in adverse health and environmental impacts. It is critical that we implement materials management strategies that are inclusive of communities with environmental justice concerns, as well as pursue innovations that offer the benefits of cleaner processing of materials to all. The *2021 Strategy* is a critical part of achieving this improved vision for how we manage materials more sustainably and equitably – building a circular economy for all.

While the *2021 Strategy* is focused on transforming the municipal solid waste recycling system, an improved recycling system alone will not achieve the kind of results needed to improve our communities, reduce climate impacts, and create jobs. That is why we also are developing a new goal to reduce the climate impacts from the production, consumption, use, and disposal of materials more broadly. This vision for how we use materials begins with designing products to be sustainable, reducing the creation of waste with local communities in mind, maximizing reuse and recycling, and minimizing the impacts of waste management at end of life. We need to strengthen our efforts to reduce, reuse, and recover materials, such as plastics, electronics, food waste, and construction and demolition debris. As we continue to build a circular economy for all, future updates to this strategy will address these materials.

DRAFT: SUBJECT TO CHANGE

We have started plotting the roadmap to achieve this bold vision. Over the next few months, we will work collaboratively with stakeholders to develop a plan for implementing the 2021 Strategy. We will ensure communities have a seat at the table and are involved in developing this implementation plan, as well as executing the actions in the 2021 Strategy. We will collaborate with innovators to change the way we design materials and products in the first place. We will seek out innovation from all levels of government and from companies, big and small, from academia, non-governmental, community-based, and industry organizations, and others to help create jobs and transform our current system of materials management.

I am confident that with the significant stakeholder support and interest in the development of the 2021 Strategy, we can accomplish these ambitious goals and transformational change together. We invite you to join us at www.epa.gov/americarecycles/forms/america-recycles-pledge.

Disclaimer

The *National Recycling Strategy* represents potential actions by all stakeholders and does not imply approval for any specific action under Executive Order 12866 or the Paperwork Reduction Act. All potential federal government activities included in the 2021 Strategy are subject to budgetary constraints, interagency processes, stakeholder input, and other approvals, including the weighing of priorities and available resources by the Administration in formulating its annual budget and by Congress in legislating appropriations. This document is not intended, nor can it be relied upon, to create any rights enforceable by any party in litigation with the United States. This document does not impose legally binding requirements. Mention of case studies, public, private, or nonprofit entities, trade names, or commercial products or services in this document does not and should not be construed to constitute an endorsement or recommendation of any such product or service for use in any manner.

DRAFT: SUBJECT TO CHANGE

Acknowledgments

Development of the *National Recycling Strategy* was a collaborative effort. EPA would like to thank the following groups for their input:

- The America Recycles pledge signatories, whose activities informed the development of the *National Framework for Advancing the U.S. Recycling System*, upon which this 2021 Strategy was built.
- Federal offices and agencies, including the Council on Environmental Quality (CEQ), the Federal Trade Commission, the National Science Foundation (NSF), the U.S. Agency for International Development, the U.S. Department of Agriculture, the U.S. Department of Commerce (DOC) (including the International Trade Administration, National Oceanic and Atmospheric Administration, and the National Institute of Standards and Technology (NIST)), the U.S. Department of Defense, the U.S. Department of Energy (DOE), the U.S. Department of State, the U.S. General Services Administration, and the U.S. Trade Representative.
- EPA's state, tribal, and local partners, including the Association of State and Territorial Solid Waste Management Officials (ASTSWMO), Environmental Council of the States (ECOS), South Carolina Department of Commerce, the U.S. Conference of Mayors, the National Tribal Caucus, and the Tribal Waste and Response Steering Committee.
- Recycling professional and industry associations and private companies, including the Institute of Scrap Recycling Industries (ISRI), the National Waste and Recycling Association (NWRA), the Solid Waste Association of North America (SWANA), and Waste Management (WM).
- Non-profit organizations, including the Environmental Research and Education Foundation (EREF), GreenBlue Institute, Keep America Beautiful (KAB), the National Recycling Coalition, The Recycling Partnership (TRP), and the U.S. Chamber of Commerce Foundation (USCCF).
- Private citizens; state, tribal, and local governments; academia; non-governmental organizations; industry associations; private companies; and others for their comments on the draft *National Recycling Strategy* during the fall 2020 public comment period.

DRAFT: SUBJECT TO CHANGE



DRAFT: SUBJECT TO CHANGE

Table of Contents

Executive Summary	1
Introduction: Reframing Recycling and the Case for a Circular Economy Approach	5
Developing the National Recycling Strategy	8
Overview of the MSW Recycling Process as a Component of a Circular Economy	10
Drivers, Opportunities, and Challenges Facing the U.S. Recycling System	12
Goals, Strategic Objectives and Actions	12
Objective A: Improve Markets for Recycled Commodities	15
A1. Promote market development.	15
A2. Produce an analysis of different types of end markets that considers resilience, environmental benefits, and other relevant factors for decision makers.	16
A3. Increase manufacturing use of recycled material feedstocks in domestic markets.	17
A4. Increase demand for recycled materials through policies, programs, initiatives, and incentives.	17
A5. Continue to support research and development into technologies and products that will expand market opportunities.	19
A6. Explore possible ratification of the Basel Convention and encourage environmentally sound management of scrap and recyclables traded with other countries.	19
Objective B: Increase Collection and Improve Materials Management Infrastructure	21
B1. Improve understanding of available recycling infrastructure and needs.	21
B2. Increase awareness and availability of public and private funding, and incentives and effective strategies to access the funding.	22
B3. Continue to fund research, development, demonstration and deployment of new technologies and processes for recycling.	22
B4. Increase consideration of recoverability and sustainability in the design of products.	22
B5. Optimize processing efficiencies at materials recovery facilities (MRFs).	23
B6. Increase collection of recyclable materials.	23

DRAFT: SUBJECT TO CHANGE

Objective C: Reduce Contamination in the Recycled Materials Stream	25
C1. Enhance education and outreach to the public on the value of recycling and how to recycle properly.	25
C2. Ensure resources are available for education and outreach initiatives.	27
Objective D: Enhance Policies and Programs to Support Circularity	29
D1. Strengthen federal coordination to support and encourage actions to improve the U.S. recycling system.	29
D2. Conduct an analysis of different policies that could address recycling challenges.	30
D3. Increase awareness of and continue voluntary public-private partnerships.	30
D4. Share best practices on policies, programs, funding opportunities, and outreach through a free, publicly accessible, online clearinghouse.	31
D5. Coordinate domestic and international interests.	31
Objective E: Standardize Measurement and Increase Data Collection	33
E1. Develop and implement national recycling system definitions, measures, targets, and performance indicators.	33
E2. Create a tracking and reporting plan.	33
E3. Create recycled content measures.	33
E4. Coordinate domestic and international measurement efforts.	34
E5. Increase data availability and transparency about recyclable materials generated and the materials manufacturers need.	34
Next Steps: Implement the Actions Identified in the National Recycling Strategy and Develop Subsequent Strategies	35
References	37
Appendix A: Examples of Existing National Efforts for Specific Materials	39
Appendix B: Summary of Public and Federal Comments and EPA's Response	43
Appendix C: Federal Partner Recycling Profiles	47

DRAFT: SUBJECT TO CHANGE

Executive Summary

The *National Recycling Strategy* is focused on enhancing and advancing the national municipal solid waste (MSW) recycling system and identifies strategic objectives and stakeholder-led actions to create a stronger, more resilient, and cost-effective U.S. MSW recycling system. It is part one of a series dedicated to building a circular economy for all. This substantially revised version of the *National Recycling Strategy* focuses on improving the nation's municipal solid waste (MSW) recycling system and broadens the future vision to include the full impact of materials while at the same time recognizing the need to achieve environmental justice priorities. The *National Recycling Strategy* reflects the work of many stakeholders, including the public, companies, non-governmental and community-based organizations, and input from other federal agencies, states, tribes, and local governments.

The U.S. MSW recycling system currently faces a number of challenges, including confusion about what materials can be recycled, recycling infrastructure that has not kept pace with today's diverse and changing waste stream, reduced markets for recycled materials, and varying methodologies to measure recycling system performance. The *National Recycling Strategy* identifies actions to address these challenges that build on the collaborative efforts by stakeholders from across the recycling system that began under the 2019 *National Framework for Advancing the U.S. Recycling System*.

Advancing MSW recycling alone will not achieve a circular economy for the United States; recycling is only one action in the toolkit. Work is necessary to broadly encompass areas not addressed here, including product redesign, source reduction, and reuse. Recycling efforts in the United States are inclusive of more than just the processing of MSW at materials recovery facilities and include many other materials, such as electronics, textiles, and food waste. Future strategies will address these and other aspects of a circular economy for all.

A "circular economy" refers to a system of economic activities that is restorative to the environment, enables resources to maintain their highest values, and aims for the elimination of waste through superior design. It is a change to the model in which resources are mined, made into products, and then become waste. A circular economy reduces material use, redesigns materials and products to be less resource intensive, and recaptures "waste" as a resource to manufacture new materials and products. Circularity is embraced within the sustainable materials management (SMM) approach that EPA and other federal agencies have pursued since 2009. A circular economy approach under the SMM umbrella demonstrates continuity in our emphasis on reducing lifecycle impacts of materials, including climate impacts, reducing the use of harmful materials, and decoupling materials use from economic growth. The 2021 *Strategy* recognizes the need to implement a circular economy approach for

all – reducing the creation of waste with local communities in mind and implementing materials management strategies that are inclusive of communities with environmental justice concerns.

The *National Recycling Strategy* is aligned with and supports implementation of the national recycling goal to increase the recycling rate to 50 percent by 2030. It includes five strategic objectives to create a more resilient and cost-effective national recycling system:

- A. Improve Markets for Recycling Commodities
- B. Increase Collection and Improve Materials Management Infrastructure
- C. Reduce Contamination in the Recycled Materials Stream
- D. Enhance Policies to Support Recycling
- E. Standardize Measurement and Increase Data Collection

Objective A: Improve Markets for Recycling Commodities

We need to improve markets for recyclable materials and recyclable products, as well as better integrate recycled materials into product and packaging designs.

- A1. Promote market development.
- A2. Produce an analysis of different types of end markets that considers resilience, environmental benefits, and other relevant factors for decision makers.
- A3. Increase manufacturing use of recycled material feedstocks in domestic manufacturing.
- A4. Increase demand for recycled materials through policies, programs, initiatives, and incentives.
- A5. Continue to support research and development into technologies and products that will expand market opportunities.
- A6. Explore possible ratification of the Basel Convention and encourage environmentally sound management of scrap and recyclables traded with other countries.

Objective B: Increase Collection and Improve Materials Management Infrastructure

Investment and innovation are necessary to improve the efficiency of materials processing infrastructure, increase collection of materials, and create a more resilient recycling system.

- B1. Improve understanding of available recycling infrastructure and needs.
- B2. Increase awareness and availability of public and private funding, and incentives and effective strategies to access the funding.

- B3. Continue to fund research, development, demonstration and deployment of new technologies and processes for recycling.
- B4. Increase consideration of recoverability and sustainability in the design of products.
- B5. Optimize processing efficiencies at materials recovery facilities (MRFs).
- B6. Increase collection of recyclable materials.

Objective C: Reduce Contamination in the Recycled Materials Stream

Reducing contamination in the recycled materials stream will improve the quality of the recycled material, enabling more material to be recycled and less discarded.

- C1. Enhance education and outreach to the public on the value of recycling and how to recycle properly.
- C2. Ensure resources are available for education and outreach initiatives.

Objective D: Enhance Policies and Programs to Support Circularity

Different policies and programs can be effective in increasing circularity. Efforts under this area aim to increase coordination, availability, and accessibility of information on recycling programs and policies at the federal, state, tribal, and local levels.

- D1. Strengthen federal coordination to support and encourage actions to improve the U.S. recycling system.
- D2. Conduct an analysis of different policies that could address recycling challenges.
- D3. Increase awareness of and continue voluntary public-private partnerships.
- D4. Share best practices on policies, programs, funding opportunities, and outreach through a free, publicly accessible online clearinghouse.
- D5. Coordinate domestic and international interests.

Objective E: Standardize Measurement and Increase Data Collection

Different definitions and measurement practices create challenges in setting goals and tracking progress. We need more consistent methodologies to measure recycling system performance.

- E1. Develop and implement national recycling system definitions, measures, targets, and performance indicators.
- E2. Create a tracking and reporting plan.
- E3. Create recycled content measures.
- E4. Coordinate domestic and international measurement efforts.
- E5. Increase data availability and transparency about recyclable materials generated and the materials manufacturers need.

Next Steps

Over the next few months, EPA will work collaboratively with stakeholders to develop a plan for implementing the *2021 Strategy*. EPA will ensure communities have a seat at the table and are involved in developing the implementation plan, as well as executing the actions in this strategy. EPA is also committing to develop a new goal to reduce the climate impacts from materials use and consumption that will complement existing national goals on recycling and the reduction of food loss and waste. EPA plans to collaborate across all levels of government, including Tribal Nations, and with public and private stakeholders to achieve these ambitious goals.

Introduction: Reframing Recycling and the Case for a Circular Economy Approach

Natural resource extraction and processing activities account for approximately 50 percent of total global greenhouse gas (GHG) emissions (International Resource Panel, 2019), and global resource consumption has tripled over the past four decades (United Nations Environment Programme, 2016). Reducing GHG emissions from the production, use, consumption, and disposal of materials can help countries meet the Paris Agreement 1.5°C target. The Ellen MacArthur Foundation (2019a) reported that applying circular economy strategies in five key materials (cement, aluminum, steel, plastics, and food) can achieve reductions in GHG emissions – 9.3 billion metric tons of carbon dioxide equivalent in 2050 globally – equivalent to cutting current emissions from all transport to zero.

A “circular economy,” as defined in the Save Our Seas 2.0 Act, refers to a systems-focused approach and involves industrial processes and economic activities that are restorative or regenerative by design, enable resources used in such processes and activities to maintain their highest values for as long as possible, and aim for the elimination of waste through superior design of materials, products, and systems (including business models). (See Figure 1). It is a change to the model in which resources are mined, made into products, and then become waste. A circular economy reduces materials use, redesigns materials to be less resource intensive, and recaptures “waste” as a resource that can serve as feedstock to manufacture new materials and products.

Circularity is already embraced in the sustainable materials management (SMM) approach that the United States has pursued since 2009. A circular economy approach under the SMM umbrella demonstrates continuity in our emphasis on reducing lifecycle impacts of materials, reducing the use of harmful materials, and decoupling materials use from economic growth. The 2021 Strategy recognizes the need to implement a circular economy approach for all – reducing the creation of waste with local communities in mind and implementing materials management strategies that are inclusive of communities with environmental justice concerns.

The United States seeks to coordinate domestic and international policies that support this approach to ensure that U.S. knowledge and approaches contribute to international discussions on circular economy, as well as leverage the data, information, tools, and experience of the international community to support domestic efforts to achieve sustainability goals.

Sustainable Materials Management (SMM) Program

EPA’s SMM program aims to reduce the environmental impacts of materials across their lifecycle and broadly covers materials use in the United States. EPA’s activities are covered by the [EPA Sustainable Materials Management Program Strategic Plan for Fiscal Years 2017 – 2022](#) (U.S. EPA, 2015). EPA has several long-standing programs and efforts underway to advance SMM. See: www.epa.gov/SMM for more information.

DRAFT: SUBJECT TO CHANGE

Introduction: Reframing Recycling and the Case for a Circular Economy Approach

5

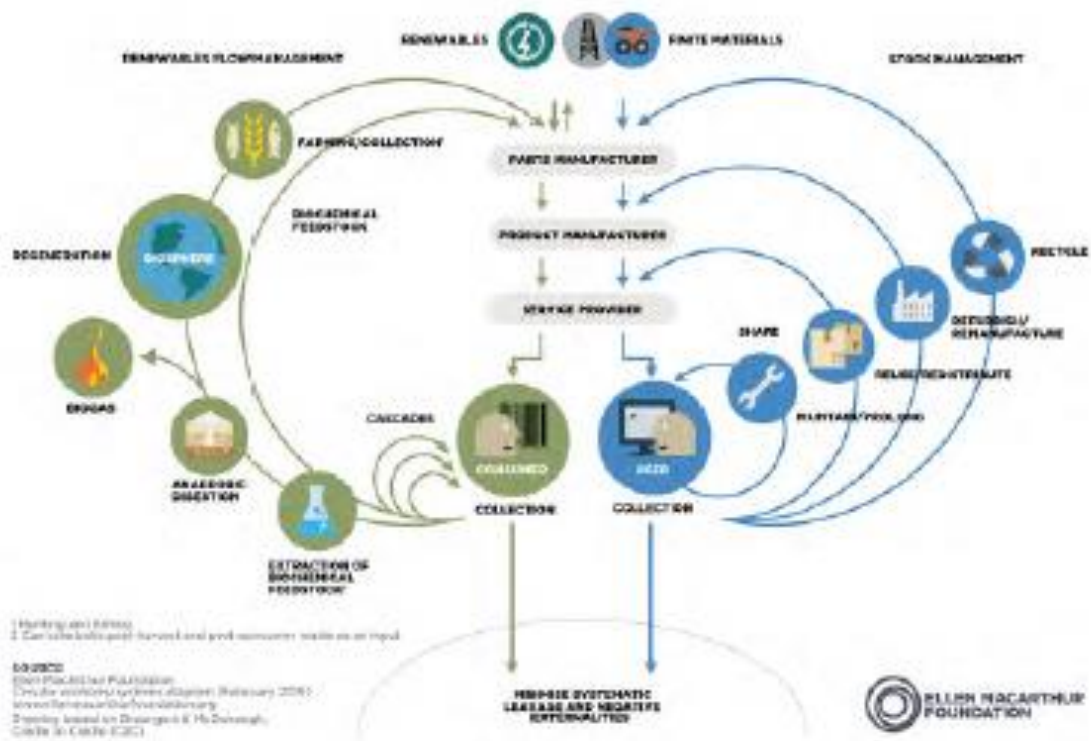


Figure 1. Diagram of circular economy (Ellen MacArthur Foundation, 2019b)

The *National Recycling Strategy* (the Strategy), which is Part One of a Series on Building a Circular Economy for All, is focused on enhancing and advancing the national municipal solid waste (MSW) recycling system, including plastics, glass, metals, and paper. The purpose of the *National Recycling Strategy* is to identify deliberate objectives and stakeholder-led actions to create a stronger, more resilient, less impactful, and more cost-effective U.S. MSW recycling system. This strategy responds in part to Congress' request in 2019 for EPA to develop a "national recycling strategy to strengthen and sustain the current system with recommendations for voluntary actions" (U.S. House of Representatives, 2019). The United States recognizes that MSW recycling is one contribution to a circular economy approach, but it is a critical first step since it serves as a key mechanism for returning materials to the supply chain.

Improvements to the U.S. waste management system through implementation of circular economy approaches and increased recycling may offer opportunities to address environmental and social justice concerns. Waste management has long been associated with the environmental justice movement; in fact, the event that catalyzed the environmental justice movement was a nonviolent sit-in protest against a polychlorinated biphenyl landfill in Warren County, North Carolina in 1982. The seminal studies on environmental justice by the Government Accountability Office and United Church of Christ showed that hazardous waste management practices have

profound implications for communities in which they are located (Chavis and Lee, 1987; GAO, 1983). Waste can impact communities where waste management facilities are concentrated, including impacts to human health, ecosystem services, property values, aesthetic and recreation values, and land productivity itself. Adverse environmental factors from waste can compound social and economic conditions and lead to higher levels of chronic health issues. Communities with environmental justice concerns, who already shoulder the burden of disposal facilities (Tishman Environment and Design Center, 2019), are most impacted by these issues.

Unsafe waste management practices can also disproportionately impact disadvantaged communities abroad. Some countries continue to strengthen their recycling and waste management systems and may face challenges to ensure that scrap and recyclables are managed in an environmentally sound manner, especially in communities with environmental justice concerns. By promoting a circular economy and a recycling system that ensures sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, this strategy can support U.S. efforts to achieve Goal 8 of the UN's Sustainable Development Goals. A circular economy and recycling systems must also promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels, which is Goal 16 of the Sustainable Development Goals. U.S. efforts under this strategy also aim to contribute towards that goal.

Environmental benefits of advancing the U.S. recycling system include decreasing the amount of pollution and conserving energy. In 2018, approximately 292 million tons of MSW were generated in the United States, of which approximately 69 million tons were mechanically recycled, and 25 million tons were composted. Together, 32.1 percent of MSW (about 94 million tons) was mechanically recycled or composted, preventing over 193 million metric tons of carbon dioxide equivalent from entering the atmosphere (MMTCO₂E) (U.S. EPA, 2020a).



Woman placing a plastic bottle into a recycling bin.

DRAFT: SUBJECT TO CHANGE

Introduction: Reframing Recycling and the Case for a Circular Economy Approach

7

Economic benefits of recycling include increasing national security and resiliency by tapping a domestic source of materials – including the retention of key critical minerals needed for manufacturing vital products, supporting American manufacturing, and creating jobs in the recycling and manufacturing industries. For example, EPA’s Recycling Economic Information Report for the United States shows that in 2012, recycling and reuse activities accounted for approximately 681,000 jobs, \$37.8 billion in wages, and \$5.5 billion in tax revenues (U.S. EPA, 2020b). Recycling turns waste into economic opportunity.

Increasing MSW recycling is one aspect of a circular economy approach since it serves as a mechanism for reducing environmental and social impacts of material use, keeps valuable resources in productive use rather than landfills, and creates jobs. EPA, in coordination with other federal agencies and interested stakeholders, intends to release subsequent strategies that will encompass other activities beyond the recycling of MSW, reflecting the need for sustainable product design, reducing waste generation, and materials reuse activities critical to realizing circularity. Subsequent strategies will address other key materials, such as electronics, cement and concrete, as well as food. EPA will also bolster this reframed focus by developing a new goal to reduce the climate impacts from materials use and consumption that will complement existing national goals on recycling and the reduction of food loss and waste. In the meantime, existing efforts will continue to address these material streams, some of which are discussed more in depth in Appendix A.

Many stakeholders submitted comments on whether to include chemical recycling in the scope of the *National Recycling Strategy*. All options, including chemical recycling, should be discussed when considering methods for sustainably managing materials. Therefore, chemical recycling is part of the scope of this strategy, and further discussion is welcome.

Developing the *National Recycling Strategy*

In 2018, in response to recent international policy changes and other challenges, EPA began an effort to focus on recycling challenges in the United States, which led to the inaugural America Recycles Day Summit in 2018. One year later, EPA published the [National Framework for Advancing the U.S. Recycling System](#) (the *National Framework*) to highlight the four main challenges the U.S. recycling system must address to be effective: promoting education and outreach, enhancing infrastructure, strengthening materials markets, and





Robotic arms sorting different types of materials.

enhancing measurement. It also identified specific voluntary actions, ongoing and planned, that EPA and recycling stakeholders would take to improve the effectiveness and resiliency of America's recycling system (U.S. EPA, 2019).

Building on the *National Framework* and EPA's long history of providing data, tools, information, and other resources to support recycling in the United States, EPA coordinated the development of the *National Recycling Strategy* to identify the actions needed to create a strong, resilient, cost-effective, and less impactful U.S. recycling system – a key element of a circular economy. EPA, working with stakeholders and other federal agencies, is resolved to meet the challenges that the U.S. recycling system faces head on and chart the course for the development of more sustainable solid waste and recycling systems. This strategy aligns with and supports Implementation of the National Recycling Goal to increase the U.S. recycling rate to 50 percent by 2030.

The *National Recycling Strategy* builds on the principles set by the *National Framework* on MSW recycling. The following key sources of information, ideas and collaborative input also informed the development of this strategy:

- **Federal Agency Input.** EPA received input from other federal agencies in the development of the *National Recycling Strategy*, including the Council on Environmental Quality, the U.S. Department of Energy, Department of Defense, the U.S. Department of Agriculture, and the Department of Commerce (including the National Oceanic and Atmospheric Administration, the National Institute of Standards and Technology, and the International Trade Administration).
- **State, Tribal, and Local Agency Input.** EPA obtained input from the Environmental Council of the States (ECOS), the Association of State and Territorial Solid Waste Management Officials (ASTSWMO), South Carolina Department of Commerce, U.S. Conference of Mayors, the National Tribal Caucus, and the Tribal Waste and Response Steering Committee.



A pile of ground up Polyethylene terephthalate (PET) plastic with icons notating the recycling process.

- **EPA's America Recycles Network.** In April 2020, EPA conducted a survey of the America Recycles Network members to identify relevant actions that could make meaningful improvements to America's recycling system. Their ideas and suggestions have been incorporated into the *National Recycling Strategy* (visit <https://www.epa.gov/americanrecycles/forms/america-recycles-pledge> to see the current list of America Recycles Pledge signatories).
- **Public Comment Period.** EPA sought input from the public on the draft *National Recycling Strategy* through a federal docket (EPA-HQ-OLEM-2020-0462) in the fall of 2020. Outreach also included a publicly accessible, recorded webinar providing an overview of the draft strategy in October 2020 and discussion and dialogue with participants at the November 2020 America Recycles Summit. EPA received considerable input that the draft strategy was too narrow in scope and that it should be broadened to embrace a circular economy approach. EPA considered all input received during the public comment period in the finalization of the *National Recycling Strategy* (see Appendix B for an overview of the comments that were received and how they were addressed).

Just as successful coordination between public and private stakeholders was instrumental in developing this document, successful implementation of this strategy will require coordinated involvement and commitment across all levels of government and stakeholders in the America Recycles Network. In addition to implementation, EPA is committed to working across the Agency and the federal government, with communities, as well as leveraging the expertise of the America Recycles Network when coordinating future strategy updates.

Overview of the MSW Recycling Process as a Component of a Circular Economy

One aspect of a circular economy approach is to recapture "waste" as a resource that can serve as feedstock to manufacture new materials through recycling. While the recycling process often differs by commodity and locality, there are essentially

four main steps: generation, collection, processing, and remanufacturing into a new product. Figure 2 depicts a simplified materials flow of the recycling process.

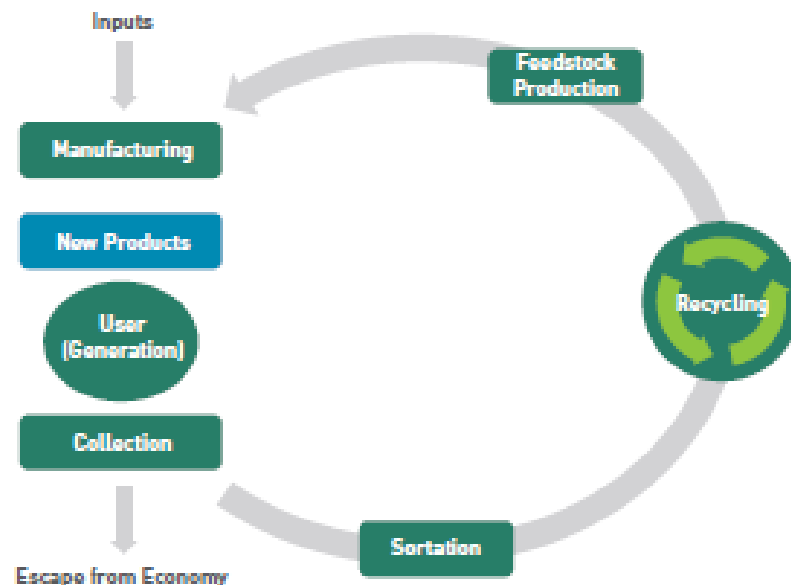


Figure 2. Conceptual Material Flow of the U.S. Recycling System

- **Generation:** Materials are generated by residents (e.g., households), public spaces (e.g., parks), institutions (e.g., universities), and commercial businesses (e.g., retail stores).
- **Collection:** Materials are collected by a private hauler or government entity through curbside collection, via transfer stations, on-site collection, drop-off centers, take-back locations, stewardship programs, and/or scrap yards.
- **Secondary Processing:** The materials are transported by the collector to a processing facility, such as a materials recovery facility or paper processor. At the processing facility, the recyclables are sorted, cleaned of physical contaminants, reduced in size, and prepared for transport to a milling facility or directly to a manufacturing facility. Some commodities may require more processing for additional sorting, size reduction, and decontamination. For example, glass and plastic are often sent to facilities where they are processed into manufacturing feedstocks.
- **Manufacturing:** After all necessary processing has been completed, recyclables are made into new products at a manufacturing establishment, such as a paper mill or can/bottle manufacturing facility.

- **Escape from the Economy:** When materials are not recycled or reused, the remaining value of those materials no longer perpetually contributes to the economy. While few materials are infinitely recyclable, the goal of a circular economy approach is to prolong the useful lifespan of non-toxic resources for as long as possible. By recycling materials, resources remain in the economy for buying, selling, and manufacturing. Although not pictured here, there are additional material losses at various points in the recycling process. For example, contamination can result in material value escaping from the economy.

Drivers, Opportunities, and Challenges Facing the U.S. Recycling System

Two major global trends are motivating major changes to the U.S. recycling system. First, changes to global trade are shifting the markets for recycled materials, and further amplifying the need for new markets and improved infrastructure across the United States. Second, increasing awareness of the extent and impacts of mismanaged waste in the environment are increasing demands for accountability and transparency in the economy, particularly for the management of materials at the end of their life. A system that extracts value from those secondary materials is critical to extending the economic benefit of natural resources.

The *2019 National Framework for Advancing the U.S. Recycling System* articulated a number of challenges facing MSW recycling, including: confusion about what materials can be recycled, which often leads to placing recyclables in the trash or throwing trash in the recycling bin or cart; recycling infrastructure that has not kept pace with today's diverse and changing waste stream; reduced markets for recycled materials; and varying methodologies to measure recycling system performance. The *2021 Strategy* builds on existing successes and efforts to advance the U.S. recycling system that are being undertaken by federal, state, local and tribal governments, non-profit organizations, communities, and multiple industries. It seeks to identify the critical technology, policy, financial, and programmatic issues that must be addressed to enhance the effectiveness and resilience of our recycling system as a critical component to a circular economy approach.



Recycling bin in a park in downtown Washington, D.C.

Goals, Strategic Objectives and Actions

On November 17, 2020 at the America Recycles Summit, EPA announced the National Recycling Goal to increase the U.S. recycling rate to 50 percent by 2030 to galvanize action to further strengthen the U.S. recycling system. The national goal and future metrics will provide the benchmarks needed to evaluate the success of the collective efforts to significantly improve the nation's recycling system. In 2021, EPA, in

COVID-19 Impacts

The COVID-19 public health emergency continues to affect recycling programs and markets for recyclables. With more people working from home, residential trash and recyclable collections have increased while commercial trash and recyclables have decreased (Staub, 2020). This has changed the composition of recyclables – for example, less office paper is being generated. Nationwide, office and school closures have lowered the supply of printing and writing paper for recycling; however, the increases in e-commerce and home grocery delivery have resulted in a surge of packaging paper. Containerboard mills are running at 95 percent operating rates, and the need for corrugated boxes has substantially raised old corrugated container (OCC) prices. The higher prices have lifted residential mixed paper prices (Miller, 2020). Recyclers are also finding an increase in the prevalence of contaminants, such as masks and latex gloves, in the recycling bin, which is further challenging recycling operations to economically and efficiently process recyclables (Sangal, 2020).

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

On January 1, 2021, Amendments to the Basel Convention to control exports and imports of plastic scrap and waste took effect. Such international actions, while limiting U.S. export markets for recyclable material, offers new incentives to develop domestic market opportunities.

Plastics and SOS 2.0

Plastics are increasingly receiving attention domestically and internationally due to concerns related to marine litter. In 2020, Congress passed the Save Our Seas 2.0 Act, which focuses on preventing, reducing, and recycling marine litter (such as plastics). The Act supports investments in post-consumer materials management infrastructure, as well as education.

coordination with other interested stakeholders, intends to finalize the methodology for calculating the recycling rate, including which material streams will be included.

EPA also intends to initiate efforts to establish a goal related to climate impacts associated with the production, use, consumption, and disposal of materials. This new goal will not only support a circular economy, it will complement the existing national recycling goal and the national goal to reduce food loss and waste. It will also contribute towards global climate change efforts and demonstrate U.S. leadership internationally in connecting innovative resource efficiency initiatives with goals to address climate change.

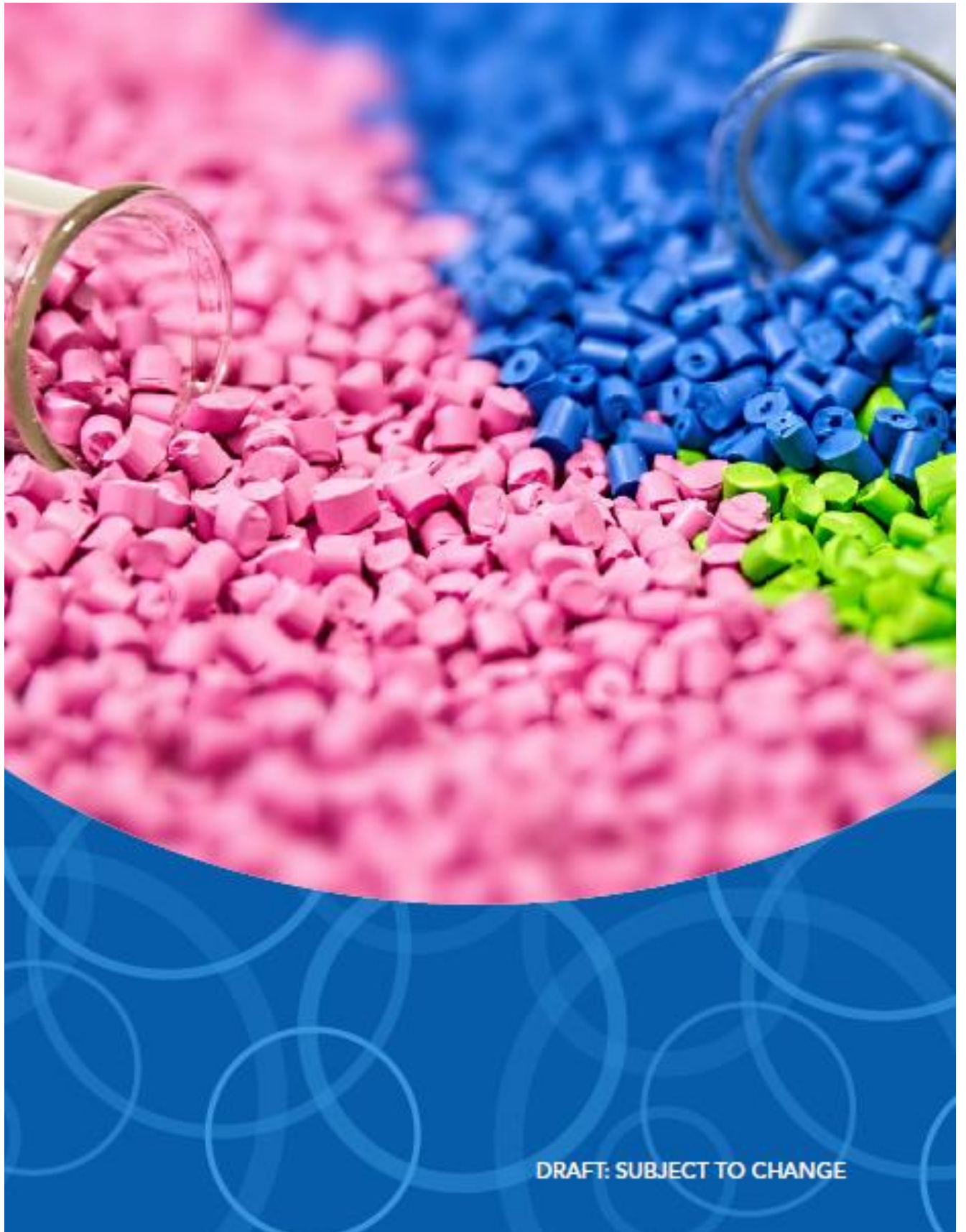
The 2021 Strategy identifies five strategic objectives that will contribute to strengthening the U.S. recycling system. They serve as the organizing framework under which specific actions are organized:

- A. Improve Markets for Recycling Commodities
- B. Increase Collection and Improve Materials Management Infrastructure
- C. Reduce Contamination in the Recycled Materials Stream
- D. Enhance Policies and Programs to Support Circularity
- E. Standardize Measurement and Increase Data Collection

The following sections describe the strategic objectives and actions.

DRAFT: SUBJECT TO CHANGE

Introduction: Reframing Recycling and the Case for a Circular Economy Approach



DRAFT: SUBJECT TO CHANGE

Objective A: Improve Markets for Recycled Commodities

To move towards circularity, we need to improve and increase markets for recyclable materials and recyclable products, as well as better integrate recycled materials into product and packaging designs. The decrease in available markets for recyclable materials has impacted the economics of recycling both within the United States and worldwide. It is also important to ensure that markets for recyclables do not further harm the environment or place additional burdens on communities near manufacturing, processing, or recycling facilities – some of which may already face environmental justice concerns.

The benefits of increasing the environmentally-sound use of recycled materials can include local job creation, added resiliency to market disruptions, cost savings to local municipalities from improved/more robust recycling markets, increased opportunities for consumers to “buy recycled” and support recycling markets, new markets for less-often-recycled materials, and reduced environmental impacts over the life cycle of the product. It is also important to ensure that recyclables are managed in an environmentally sound manner when sent for further processing so that communities with environmental justice concerns are not adversely affected by recycling practices.

A1. Promote market development.

A1.1. Conduct market development workshops and dialogues to spur market development for recycled materials, educate stakeholders on the value of secondary materials, and identify solutions to recycling system challenges. Coordinate dialogues among private and public recycling programs, manufacturers, and other relevant stakeholders on actions that can be taken to strengthen markets for recycled materials at the state, regional, and local levels, including smaller markets and rural areas. Market development workshops, such as those held by EPA, the Northeast Recycling Council (NERC), and the Southeast Recycling Development Council (SERDC) in 2019, are one mechanism to bring together targeted stakeholders to engage in discussions about specific market development issues.

A1.2. Support regional market development entities. Ensure funding for state or regional market development entities (existing or that need to be established), such as the Washington Recycling Development Center, NERC, SERDC, etc. Regional market development entities are positioned to focus on state and regional efforts and priorities, as well as leverage existing materials marketplaces.



Recycled plastic being cut through a recycling machine.

A1.3. Produce an analysis of market development opportunities suited to rural areas. Rural areas have unique challenges in developing and sustaining markets. Building markets in rural areas would stimulate local job creation from the development of small-scale manufacturers that use locally generated materials.

A1.4. Create market development toolkits for communities. Collect case study success stories, ideas, and resources on improving markets and compile them into a reference. Consulting the toolkit could be a first step to help communities address their local market development challenges. Initiate community engagement and introduce market development concepts to communities facing environmental justice concerns, so they can consider recycling markets as a potential redevelopment option.

A2. Produce an analysis of different types of end markets that considers resilience, environmental benefits, and other relevant factors for decision makers.

Markets vary in their economic viability, stability, and how much the use of recycled materials in these product categories benefits the environment. An analysis of end markets and their requirements can inform decision makers about the value, costs, social impacts, and potential benefits (environmental, social, and economic) associated with investing in activities to strengthen the nation's recycling system.

A3. Increase manufacturing use of recycled material feedstocks in domestic markets.

- A3.1. Increase awareness of regional feedstocks available to local manufacturers.** Often, manufacturers or other possible users of recycled products are not aware of the recycled material feedstock in their area or aware of the potential to use that material. Communities do not always generate enough recycled material to make it worthwhile to transport it long distances to other manufacturers who might be able to use the material. One way to help strengthen and increase the use of recycled material as feedstock is by ensuring that manufacturers in the regions where it is generated can take advantage of the available supply.
- A3.2. Form a plan to develop the needed capacity and improvement of domestic markets to use recycled materials generated in the United States.** This could include combining infrastructure and feedstock data from Actions A3 and B1 with manufacturers who use/potentially use recycled materials. Explore ways to ensure a consistent supply of feedstock is available to manufacturers.

A4. Increase demand for recycled materials through policies, programs, initiatives, and incentives.

- A4.1. Identify strategies for addressing materials with less mature markets.** Consider ways to assist less mature markets across the country reach maturity. Focus on materials with limited markets that could have the greatest environmental impacts. Explore ways to incentivize partnerships between feedstock producers and users and connect markets across regions.



Machines break and combine glass in a recycling facility. This broken glass, called cullet, can be mixed with sand, limestone and other raw materials to produce molten glass, which is used to create new bottles and jars.

A4.2. Identify strategies to address barriers to using recycled content in products. Identify barriers to recycled content use in products. This includes supply chain, contamination, economics, legislation/policies, technological limits to recycled content, product safety requirements (i.e., U.S. Food and Drug Administration approvals), perceptions of inferior quality, and product performance specifications. Collaborate



Paper cup made from recycled paper.

with governments, academia, public interest groups, environmental organizations, and manufacturers to find strategies to tackle those barriers. Develop programs for the private sector to increase recycling, like the Buy Recycled Business Alliance, and help manufacturers find ways to bring municipal materials into their facilities for use. Consider the use of existing and, where needed, development of third-party certifications for recycled/secondary materials.

A4.3. Develop messaging about buying sustainable products made with recycled content. Determine best approaches and strategies to develop effective messaging campaigns encouraging producers and the public to close the recycling loop by buying new sustainable products made from recycled materials. To increase awareness among consumers, identify producers of recycled products, and consider a recycled content label, so consumers can clearly understand what portion of the materials in the product is recycled.

A4.4. Host dialogues with manufacturers and other stakeholders to learn what policies, programs, and incentives would promote greater use of recycled content in products. Encourage communication among governments, manufacturers, and stakeholders to identify programs, challenges, incentives, and policies that fit best within their market to increase recycled content use in products.

A4.5. Encourage institutions, corporations, and governments to adopt procurement policies to purchase more sustainable materials made with recycled content. Through their purchasing power, governments and other entities can increase demand for products made with recycled content. This action could include updating existing guidelines, such as EPA's Comprehensive Procurement Guidelines or creating new guidelines for buying products with post-consumer recycled content, taking into consideration existing private sector standards and certifications.

A4.6. Create a "Demand Challenge" partnership program to encourage the use of recycled materials in products. A voluntary recognition program (led by the federal government or other entities) could encourage companies to increase their use of secondary materials both through purchasing power (buying recycled) and incorporating recycled materials into their manufactured products.

A5. Continue to support research and development into technologies and products that will expand market opportunities.

Research and development can create new markets by finding novel ways to use secondary materials as feedstocks and developing technology to allow the recycling of difficult-to-recycle materials. Funding projects and building new partnerships with universities, industry, and others will both advance secondary materials use and expand markets for materials and products.

A6. Explore possible ratification of the Basel Convention, and encourage environmentally sound management of scrap and recyclables traded with other countries.

A6.1. Support the Basel Convention. Some countries continue to strengthen their recycling and waste management systems and may face challenges to ensure that scrap and recyclables are managed in an environmentally sound manner, especially in communities with environmental justice concerns. [The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal](#) requires Parties to control the transboundary movements of certain materials and hazardous waste covered by the Convention, and to take measures to not allow certain exports if Parties have reason to believe the exports would not be managed in an environmentally sound manner.

Currently, EPA has authority under the U.S. Resource Conservation and Recovery Act to control transboundary movements of most hazardous recyclables and waste, but not all Basel-controlled waste. The United States signed the Basel Convention in 1990 and the Senate gave its advice and consent to ratification in 1992. The United States should explore options for strengthening U.S. participation in the Basel Convention, including options that would enable ratification.

A6.2. Encourage environmentally sound management practices to support protection of human health and the environment. The United States supports environmentally sound management of scrap and recyclable materials. In conjunction with exploring options for strengthening U.S. participation in the Basel Convention, EPA should identify ways to enhance practices to ensure that environmentally sound management of scrap and recyclable materials can benefit circular economy approaches.

DRAFT: SUBJECT TO CHANGE

Objective A: Improve Markets for Recycled Commodities

19



DRAFT: SUBJECT TO CHANGE

Objective B: Increase Collection and Improve Materials Management Infrastructure

Recycling Infrastructure – the equipment associated with the collection, conveyance, sorting, processing, and reintroduction of recyclables feedstock into the manufacturing process – in the United States has not kept pace with the rapidly changing recyclables stream, and products are not designed with current infrastructure in mind. Access to recycling opportunities also varies so, the access to the benefits from recycling also varies among communities. Investment and innovation are necessary to increase collection opportunities, improve sorting materials, increase the efficiency of materials processing infrastructure, increase the collection of materials, and create a more resilient recycling system. Examples of efficiencies that can be attained through additional investment include: decreasing the cost of sorting recyclable materials; decreasing the amount of residuals that are removed from the recycling stream to produce properly sorted recyclable products; improving the quality and quantity of recyclables exiting the materials sorting process; and increasing the proportion of recyclable materials post-sort compared to the amount of recyclables entering the materials recovery facility (MRF).

Anticipated benefits from infrastructure investment include adoption of innovative technologies for processing equipment, increases in materials for manufacturers, and economic benefits and job creation from expanding recycling capacity, particularly in underserved communities.

B1. Improve understanding of available recycling infrastructure and needs.

B1.1. Create a national map of existing recycling infrastructure to depict available recycling system capacity. Building on existing information, develop a map of recycling infrastructure, that includes key elements of the recycling system, from available collection points (e.g., drop-off centers, scrap yards, MRFs), sortation and secondary processing facilities (e.g., MRFs, baling operations, scrap yards, plastics reclaimers, pulp mills, glass beneficiation facilities), and ultimately manufacturing centers that use the recycled materials (e.g., plastic/products manufacturers, paper/paperboard mills, steel/aluminum mills, glass product/packaging manufacturers).

B1.2. Conduct a needs assessment of recycling infrastructure in the United States. Using information from the national map and other sources, conduct a needs assessment of the nation's recycling infrastructure that includes social equity in accessing recycling services. Then produce an outline of recommendations for infrastructure improvements and an investments/cost analysis to implement the improvements.

B1.3. Improve recycling infrastructure. Use the information from Actions B1.1 and B1.2 to make improvements to the recycling infrastructure, ensure access to recycling is widespread, and environmental justice is considered in the siting of new infrastructure. Create a list of milestones for MRFs to complete within a 10-year timeframe. Consider pilot programs for communities to make collection-related improvements, such as new bins, trucks, dual or multi-stream collection systems, and personal protective equipment (PPE).

B2. Increase awareness and availability of public and private funding, and incentives and effective strategies to access the funding.

B2.1. Increase public and private funding opportunities. Additional sources of funding would help implement the infrastructure additions and upgrades that are identified as part of Action B1. Rapidly evolving sorting technology and advances in alternate forms of recycling technologies also increase the costs of maintaining up-to-date facilities. Funding could take the form of tax credits, grants, loans, subsidies, or other types of funding at a local, state, or national level and should consider and prioritize direct and indirect benefits to under resourced communities, to the extent allowed by law.

B2.2. Compile and share available funding sources and related resources. Public and private funding sources to support enhancements to infrastructure exist, but they are dispersed and not easily identifiable for many seekers of funding. Best practices and successful models addressing key issues, such as environmental impacts, collection costs, processing costs, and revenue from material sales, should be compiled and made publicly accessible.

B3. Continue to fund research, development, demonstration and deployment of new technologies and processes for recycling.

Funding through grants and other mechanisms would support identification and evaluation of strategies and new technologies that could be scaled up and replicated across the country – both for existing materials that are difficult to process and future materials. New technology processes can result in environmental and cost-competitive gains from improvements in manufacturing and processing efficiencies. Partners include universities, private industry, and other research organizations.

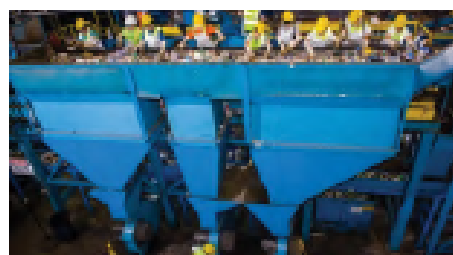
B4. Increase consideration of recoverability and sustainability in the design of new products.

Manufacturers of products and packaging may not be aware of the impacts their material and design choices have on the ability of consumers, reuse markets, MRFs, and

secondary processing facilities to recover, reuse, and recycle their materials. Material design and selection should consider both the intended useful lifetime and their impacts on established recycling systems. The use and promotion of tools such as design guides for recycling and upstream analyses of a material's/product's recoverability; collaborative dialogues among MRFs, retailers, product designers, chemists, academia, and manufacturers; technical support programs; "design for environment" educational materials; information about secondary materials that are in demand; design incentives for manufacturers; purchasing specifications; and other outreach campaigns and tools are strategies that should be explored.

B5. Optimize processing efficiencies at materials recovery facilities (MRFs).

Create a universal guide for contamination audits at MRFs, and perform optimization assessments to identify how MRFs can improve their processing efficiency. Explore regionalization strategies, such as the "hub-and-spoke" model, that can also optimize efficiencies and reduce costs.



Workers sorting and separating materials for recycling.

B6. Increase collection of recyclable materials.

B6.1. Engage in outreach efforts to increase participation in recycling. Increasing the supply of collected materials will support end markets that are supply-constrained now and support companies that are scaling up new technologies to recycle more types of materials. Many companies have recently made significant commitments to increase the recyclability and recycling of consumer products and packaging, as well as the amount of recycled content incorporated in them.

B6.2. Provide data and analyses to support increased collection of recyclables. Analyses could include a close look at each state's waste and recyclables profile, and then use the information to improve recycling. An analysis of single-stream and source-separated recycling with recommendations and metrics could help decision makers choose the most effective option for their communities.

B6.3. Implement incentives, policies, and programs that result in increased collection. Drawing upon the policy analysis in Action D2, decision makers can implement policies best suited to increase the collection of recyclable materials in their communities. Incentives could be explored to encourage retailers to become collection points for some types of materials.



DRAFT: SUBJECT TO CHANGE

Objective C: Reduce Contamination in the Recycled Materials Stream

Reducing contamination in the recovered materials stream is necessary to improve the quality of the recycling stream and produce the valuable secondary materials that drive markets. Contamination can occur at various times throughout the recycling process and negatively affects the ability of a MRF or secondary processing facility to produce high-quality, clean recycled materials that serve as feedstock for new materials and products. Efforts under this objective may expand to other ways to improve the quality of the recycling stream as contamination decreases.

Anticipated benefits from reducing contamination in the recycling stream will enable more material to be recycled and increase the value and quality of recycled materials and feedstock. Higher-quality recycled material will increase the available supply of recycled material and support strengthening markets for recycled materials.

C1. Enhance education and outreach to the public on the value of recycling and how to recycle properly.

C1.1. Develop messaging and educational materials about the importance and value of recycling. While it is generally understood that recycling is one action people can take to help protect the environment, additional messaging and educational materials emphasizing the environmental, social, and economic benefits of recycling as a key aspect of a circular economy approach need to be produced and made available to state, local and tribal governments. For example, the America Recycles Network



Pressed plastic bottles in bales.

DRAFT: SUBJECT TO CHANGE

Objective C: Reduce Contamination in the Recycled Materials Stream

25



Bales of cardboard awaiting shipment.

published a jobs infographic to help consumers understand the economic benefits of recycling. Communications and materials will be developed to reach diverse audiences. Federally funded messaging will be Section 508 and Americans with Disabilities Act compliant. When possible, messages should be translated into multiple languages, to support broad outreach to consumers, industry, elected officials, students, and other stakeholders.

C1.2. Develop common recycling messages on key issues to promote awareness, increase recycling participation and ensure a more consistent stream of recyclable material. Common messages about key recycling issues are critical to reducing contamination by making sure the public understands the consequences of contamination and understands how to recycle right. For example, the America Recycles Network published an infographic and developed a social media campaign to highlight positive recycling messages. A variety of educational messages are needed to be responsive to and reflective of diverse communities.

C1.3. Identify effective ways to educate the public about recycling, test those methods with pilot educational campaigns, and then incorporate them into a national program. There are a variety of approaches and strategies to develop effective messaging campaigns. For example, one approach, community-based social marketing (CBSM), emphasizes direct contact among community members and the removal of structural barriers, since research suggests that such approaches are most likely to inspire behavior change (McKenzie-Mohr, 2011). Ultimately, the approach should be tailored to meet the needs and budget of the community.

C1.4. Enlist the assistance of traditional and social media, governments, MRFs, waste haulers, and product manufacturers to disseminate messaging. Elevating the awareness of the importance of recycling and developing new educational materials and campaigns can be supported and advanced by traditional and social media, governments, MRFs, waste haulers, and product manufacturers to increase their impact. For example, several states and local governments already create recycling toolkits, direct mailers, "oops" cart tags, and brochures. Schools can be used as a venue to educate children about recycling, who then repeat the messaging at home. Connecting governments and product manufacturers is another strategy for amplifying and more broadly disseminating messaging through traditional and social media.

C1.5. Improve consistency of labels for recyclable products, recycling bins, and trash bins. Consistent labels, signage, symbols, and messaging for recyclable products, recycling bins, and trash bins could reduce consumer confusion about what products can be recycled and which bins are appropriate for different recyclable materials. Likewise, clarifying existing labels that are confusing to consumers – for example, the resin identification code – could make recycling easier. Labels should be accurate and not misleading.

C1.6. Develop a plan to assist state and local governments with contamination. Often state and local governments do not have the resources to effectively address recycling contamination problems. A comprehensive strategy will help state and local governments with reducing contamination of recyclables caused by incorrect materials being placed in recycling containers would be helpful.

C2. Ensure resources are available for education and outreach initiatives.

Education, outreach, and information resource hubs will need resources to ensure that they are sustainable and effective. In-kind resources, funding, or other types of support will need to be leveraged or created.



DRAFT: SUBJECT TO CHANGE

Objective D. Enhance Policies and Programs to Support Circularity

Different policies and programs can be effective in increasing circularity. Extended producer responsibility (EPR) policies – policies that place a shared responsibility for end-of-life product management on producers and other entities involved in the product chain – advanced recovery fees, and landfill bans are all examples of policy drivers that are intended to increase materials recovery at the state and local levels, but governments need to know when to use them and what conditions make them successful. Efforts under this area aim to increase coordination, availability, and accessibility of information on recycling programs and policies at the federal, state, tribal, and local levels.

Anticipated benefits from enhancing policies to support recycling include better informed, effective, and efficient policies that lead to increased recycling.

D1. Strengthen federal coordination to support and encourage actions to improve the U.S. recycling system.

To support and encourage action to address the challenges facing the U.S. recycling system, federal partners could formalize their collaboration through a workgroup dedicated to identifying opportunities to leverage existing programs and funding. The federal government is uniquely positioned to advance recycling via policies, procurement, and management of waste and recyclables generated at federal facilities. Actions could include developing a common policy statement supporting the National Recycling Goal and other collaborative efforts to achieve it.



Workers sorting through trash in a recycling facility.

DRAFT: SUBJECT TO CHANGE

Objective D. Enhance Policies and Programs to Support Circularity

29

D2. Conduct an analysis of different policies that could address recycling challenges.

Governments and other entities have adopted various policy approaches to address the challenges facing the recycling system. Conducting an analysis of different policies for their effectiveness could help inform decision makers nationally. Examples of policies to include in the analysis are:

- Recycled content requirements for products
- Taxes on virgin materials
- Bottle bills
- Take-back programs
- EPR requirements
- Fees for recycling incorrectly
- Landfill fees
- Packaging fees
- Policies favoring natural resource use
- Recycling mandates
- Pay-as-you-throw
- Consumer incentives
- Bans on contaminants in products
- Bans on producing/using specific materials
- Bans on certain materials in landfills
- National recyclability standards
- Minimum standards on MRFs to recover certain materials
- Minimum quality/contamination standards for MRF outputs
- Dual stream versus single stream collection
- Policies/incentives to divert materials from landfills
- Data reporting requirements
- Policies to support infrastructure development (permitting requirements, regulations, stakeholder engagement, etc.)

D3. Increase awareness of and continue voluntary public-private partnerships.

Public-private partnerships are a proven, effective way to leverage government and private sector commitments and translate them into results. For example, WasteWise is one of EPA's longest-standing partnership programs and has involved thousands of organizations, ranging from corporations and businesses to educational institutions and governments. Since 1994, WasteWise participants have prevented more than 247 million tons of waste from going to the landfill, avoided 459 million metric tons of carbon dioxide equivalent, which is equivalent to the emissions from more than 97.5 million passenger vehicles. We should leverage existing successful partnerships and consider creating new ones to advance recycling and sustainability.

D4. Share best practices on policies, programs, funding opportunities, and outreach through a free, publicly accessible online clearinghouse.

Through the America Recycles Network, the U.S. Chamber of Commerce Foundation launched an online, virtual clearinghouse as part of its Beyond 34 Initiative, which is aimed at increasing the recycling rate in the United States by providing a scalable model to optimize recycling and recovery systems. The clearinghouse was created to include information about effective education and outreach campaigns, existing reports about recycling policies in other countries, information on free, open-source, downloadable labels for recycling bins, lessons learned from COVID-19, MRF contract information and best practices for governments contracting for processing services, and more. The clearinghouse can act as a vehicle to share and amplify solutions to recycling challenges. Regular mechanisms for updating and maintaining accurate information need to be identified.

D5. Coordinate domestic and international interests.

Countries around the world are working to implement circular economy strategies and policies. Coordinating U.S. circular economy interests with other countries will allow the United States to support a resource efficient and circular economy approach to management of scrap and recycling.



Workers in an assembly line sorting recycled materials.



DRAFT: SUBJECT TO CHANGE

Objective E: Standardize Measurement and Increase Data Collection

Measurement forms the bedrock of achieving the National Recycling Goal to increase the recycling rate to 50 percent by 2030 and the objectives described within the 2021 Strategy. Different definitions and measurement practices create challenges in setting goals and tracking progress. Stakeholders across the recycling system agree that more consistent measurement methodologies are needed to measure recycling system performance. More standardized metrics will provide a powerful tool to create effective milestones and track progress as the *National Recycling Strategy* is implemented.



Benefits of standardizing methodologies and collecting measurement data include improved data availability and granularity for a range of recyclables, being able to track progress clearly and make adjustments on the road to achieving the National Recycling Goal, being able to compare data across different jurisdictions, and minimizing data gaps.

E1. Develop and implement national recycling system definitions, measures, targets, and performance indicators.

Recycling definitions, measures, targets, and performance indicators will help advance the understanding of how the recycling system is performing. This effort will improve data availability and granularity for a range of recyclables and support tracking and measuring progress nationally. EPA will continue to collaborate with interested stakeholders to develop standardized definitions, measurement methodologies, baselines, and targets for future metrics and the National Recycling Goal. Action E1 should include work by other entities to identify and develop additional metrics.

E2. Create a tracking and reporting plan.

The plan would allow for consistent tracking and reporting of recycling activities on a regional and national scale. It would optimize the value of datasets by minimizing gaps in data and improving data collection.

E3. Create recycled content measures.

Explore national post-consumer content measures and third-party specification programs to make it easier to verify and compare recycled content in products. This information can help consumers make informed decisions about their purchases and provide a national barometer of use of recycled materials in products.

DRAFT: SUBJECT TO CHANGE

Objective E: Standardize Measurement
and Increase Data Collection

33

E4. Coordinate domestic and international measurement efforts.

Countries are often compared in the context of their ability to recycle materials, particularly in the context of sharing best practices and effectiveness of policies. Enhancing measurement efforts could provide U.S. recycling stakeholders the additional information necessary to compare domestic recycling efforts to those of other countries and make domestic improvements as needed.

E5. Increase data availability and transparency about recyclable materials generated and the materials manufacturers need.

- E5.1. Gathering data.** Data about the amount of recycled material generated, type of materials, location of materials, energy use, and impacts of materials often are not readily available or easy to find and need to be gathered and provided. Compile nationwide information on buying recycled products, including federal/state/local government purchases, and state and local laws and policies.
- E5.2. Improving data availability and transparency.** Improving the availability, granularity (local, regional, national), transparency, type, and format of data about recycled materials would be beneficial to governments, industry, and others to make recycling market development decisions. For example, it could enable potential buyers and sellers of materials to be more easily matched.
- E5.3. Improve the facilitation of data for product design and procurement.** Create a feedback mechanism to inform product designers and procurement decision makers about how materials are being collected, sorted, and processed at the end of their lives. A directory of materials suppliers could allow buyers to give feedback to sellers about the types and qualities of materials they need.

Next Steps: Implement the Actions Identified in the National Recycling Strategy and Develop Subsequent Strategies

EPA will develop an implementation plan that will provide more specificity about the actions and their organizational leads. EPA will integrate equity and environmental justice principles and priorities into all aspects of implementing the *National Recycling Strategy*, as well as considering these principles in developing future strategies. The implementation plan will identify the resources and investments needed – balancing the risk reductions with costs, clarify the roles and responsibilities of participating entities, and articulate EPA's role in implementing the *National Recycling Strategy* and integrating new activities into the Agency's existing programs and activities. EPA will help facilitate the implementation of actions in this strategy and provide routine status updates to interested stakeholders.

The National Recycling Goal and Strategy Nexus

The National Recycling Goal and the *National Recycling Strategy* are integrated and support the ultimate goal of improving recycling and increasing circularity within the United States. The methodology to measure the recycling goal and its key metrics is under development and expected to be finalized later this year. In the development of the implementation plan, EPA will bring the recycling goal and *National Recycling Strategy* together into a comprehensive plan. As EPA moves beyond recycling to develop additional strategies, EPA also will develop a new goal to reduce the climate impacts from materials production, consumption, use and disposal that will complement the focus on a circular economy approach. This new goal will complement the National Recycling Goal, as well as the U.S. goal to halve food loss and waste by 2030.

Stakeholder Involvement

Successful implementation of the *National Recycling Strategy* is highly dependent upon commitment and involvement from stakeholders across the recycling chain – haulers, waste management companies, non-profit organizations, governments, academia, industry, community members, and others. All interested parties are welcome to participate. During the public comment period, some organizations signaled their interest in being involved in the implementation of the *National Recycling Strategy*. EPA will follow up with those organizations and reach out to others to start work on implementing the actions. EPA, in coordination with others, intends to develop and release an implementation plan for the *National Recycling Strategy* that summarizes these initial commitments in 2021. Appendix C summarizes ongoing recycling work across the federal government that could be leveraged to implement the *National Recycling Strategy*.

DRAFT: SUBJECT TO CHANGE

Next Steps: Implement the Actions Identified in the
National Recycling Strategy and Develop Subsequent Strategies

35

Develop Additional Strategies to Reflect Additional Actions Necessary for a Comprehensive Circular Economy Approach in the United States

As EPA begins implementing the *National Recycling Strategy*, EPA will also start developing strategies that go beyond the recycling of MSW. Other areas of consideration are sustainable product design, waste generation reduction, and materials reuse activities critical to a circular economy approach. Activities will be expanded to include other materials, such as electronics, cement and concrete, and food. EPA will ensure communities have a seat at the table and are involved in future strategies.

References

- Chavis, Benjamin F. Jr. and Charles Lee. 1987. *Toxic Wastes and Race In the United States*. Commission for Racial Justice, United Church of Christ.
- Ellen MacArthur Foundation. 2019a. *Completing the Picture: How the Circular Economy Tackles Climate Change*. <https://www.ellenmacarthurfoundation.org/publications>. Accessed March 3, 2021.
- Ellen MacArthur Foundation. 2019b. *Circular Economy System Diagram*. <https://www.ellenmacarthurfoundation.org/circular-economy/concept/infographic>. Accessed March 4, 2021.
- International Resource Panel. 2019. *Global Resources Outlook 2019: Natural Resources for the Future We Want. A Report of the International Resource Panel*. United Nations Environment Programme. Nairobi, Kenya.
- Law, Kara Lavender, Natalie Starr, Theodore R. Siegler, Jenna R. Jambeck, Nicholas J. Mallos, and George H. Leonard. 2020. The United States' contribution of plastic waste to land and ocean. *Science Advances*, 6, October 30, 2020.
- McKenzie-Mohr, D. 2011. *Fostering Sustainable Behavior: An Introduction to Community-Based Social Marketing Third Edition*. New Society Publishers, Limited.
- Miller, C. 2020. *The Plague of Uncertainty: The Pandemic's Unpredictable Impacts on Recycling and Its Markets (Commentary)*. Published May 29, 2020.
- Sangal, A. 2020. Discarded masks and gloves are becoming a health hazard as people dump them on streets. CNN. <https://www.cnn.com/2020/04/21/us/coronavirus-ppe-masks-gloves-environment-hazard-trnd/index.html>. Accessed August 18, 2020.
- Staub, C. 2020. City data shows COVID-19 impacts on recycling tonnages. *Resource Recycling*. <https://resource-recycling.com/recycling/2020/04/28/city-data-shows-covid-19-impacts-on-recycling-tonnages/>. Accessed July 29, 2020.
- Tishman Environment and Design Center. 2019. *Local Policies for Environmental Justice: A National Scan*. The New School, New York, NY.
- UNEP. 2016. *Global Material Flows and Resource Productivity. An Assessment Study of the UNEP International Resource Panel*.

- U.S. EPA. 2015. EPA Sustainable Materials Management Program Strategic Plan for Fiscal Years 2017 - 2022. <https://www.epa.gov/smm/epa-sustainable-materials-management-program-strategic-plan-fiscal-years-2017-2022>. Accessed July 7, 2020.
- U.S. EPA. 2017. Environmental Justice Timeline. <https://www.epa.gov/environmentaljustice/environmental-justice-timeline>. Accessed March 4, 2021.
- U.S. EPA. 2019. National Framework to Advance the U.S. Recycling System. Washington, D.C. EPA530-F-19-008.
- U.S. EPA. 2020a. Advancing Sustainable Materials Management: 2018 Fact Sheet. Washington, D.C. EPA. EPA530-F-20-007.
- U.S. EPA. 2020b. Recycling Economic Information (REI) Report. Washington, D.C. EPA530-R-20-003.
- U.S. Government Accountability Office. 1983. Siting of Hazardous Waste Landfills and their Correlation with Racial and Economic Status of Surrounding Communities. Washington, D.C. GAO/RCED-83-168.
- U.S. House of Representatives. 2019. Department of the Interior, Environment, and Related Agencies Appropriations Bill, 2020. Washington, D.C. House Report 116-100, 116th Cong., pp 88. <https://www.congress.gov/congressional-report/116th-congress/house-report/100/1>. Accessed May 4, 2021

EPA's SMM program has broadly covered materials use in the United States, and EPA's activities have been covered by the [EPA Sustainable Materials Management Program Strategic Plan for Fiscal Years 2017 – 2022](#). EPA has several long-standing programs and efforts underway to advance SMM, including the sustainable management of food, advancing SMM in the built environment (our nation's roads, bridges, and infrastructure), and electronics management. These programs will be leveraged, as necessary, to move activities under the 2021 Strategy forward.

Sustainable Management of Food

Food not used for its intended purpose is managed in a variety of ways, such as donation to feed people, creation of animal feed, composting, anaerobic digestion, or sending to landfills or combustion facilities. The following are examples of national efforts to reduce wasted food:

- The U.S. Department of Agriculture (USDA), the U.S. Environmental Protection Agency (EPA), and the U.S. Food and Drug Administration (FDA) established an [interagency agreement](#) in October 2018 and renewed the agreement affirming their shared commitment to work towards the national goal of reducing food loss and waste by 50 percent by the year 2030 in December 2020. The agencies agree to coordinate food loss and waste actions such as: education and outreach, research, community investments, voluntary programs, public-private partnerships, tool development, technical assistance, event participation, and policy discussion on the impacts and importance of reducing food loss and waste. The agencies developed a federal interagency strategy to prioritize and coordinate their efforts in six action areas.
- The [2018 Wasted Food Report](#) describes an enhanced measurement methodology used to calculate national wasted food estimates and provides detailed estimates of generation and management by sector. The report includes estimates for the commercial, residential and institutional sectors, as well as the industrial sector (i.e., food and beverage manufacturing and processing). Improved data and measurement ensure the efficiency and effectiveness of sustainable management of food approaches and allows EPA to better focus support of state, municipal, and tribal efforts.
- The ReFED [Insights Engine](#) is a data and solutions hub for food loss and waste, designed to provide anyone interested in food waste reduction with the information and insights they need to take meaningful action to address the problem. The ReFED Insights Engine provides an analysis of a range of potential

DRAFT: SUBJECT TO CHANGE

Appendix A: Examples of Existing
National Efforts for Specific Materials

39

solutions based on their impact potential (amount of food waste diverted, greenhouse gas (GHG) emissions reduced, meals recovered, jobs created, and net economic benefit); the investment required and the potential return on investment; and potential barriers. ReFED has also created a framework for implementing the solutions in the Insights Engine in its new [Roadmap to 2030: Reducing U.S. Food Waste](#), which looks at the entire food supply chain and identifies seven key action areas for the food system to focus its food waste reduction efforts over the next 10 years.

SMM in the Built Environment

The Built Environment is a part of nearly every aspect of our lives – from the homes we live in, to the buildings we work in, and the factories and businesses that are the engine of the American economy. According to the International Resource Panel (IRP), globally, the greatest increases in consumption of materials is construction minerals, ores, and industrial minerals. As construction increases, new solutions are necessary to maximize the use of available resources, minimize negative environmental impacts, and avoid unnecessary costs. However, there is not an unlimited source of these essential materials, so it is critical to consider all available resources to continue to grow and prosper. Byproducts generated by industrial processes such as road and building construction and demolition, iron and steel production, metal casting, and electricity production can be recovered, reused, and recycled, further reducing GHG emissions and creating jobs. For example:

- According to EPA's estimates, 600 million tons of construction and demolition (C&D) debris were generated in the United States in 2018, which is more than twice the amount of generated municipal solid waste. Over 455 million tons of C&D debris were directed to next use, and just under 145 million tons were sent to landfills.
- The C&D materials recycling and reuse sector accounts for the greatest share of jobs created in [EPA's Recycling Economic Information](#) report.

EPA collaborates with a wide range of stakeholders to find innovative solutions to address infrastructure needs while generating jobs and increasing competitiveness. EPA provides data and technical assistance to support decision-making about materials use and recovery. For example, EPA released a [lifecycle assessment of single-family residential construction in the U.S.](#), which identified the most impactful areas associated with the lifecycle of single-family homes and identified materials management strategies that could be undertaken to reduce those impacts. In addition, EPA's [Methodology for Evaluating Beneficial Uses of Industrial Non-Hazardous Secondary Materials](#) presents EPA's approach for evaluating a wide range of industrial non-hazardous secondary materials and their associated beneficial uses.

Electronic Waste

Electronic waste is a growing part of the waste stream as electronics become more integrated into our daily lives. Recycling these products once they reach the end of their life both protects the environment and allows us to recover valuable materials for reuse in new products. EPA promotes responsible electronics recycling through its voluntary [SMM Electronics Challenge](#). The Challenge focuses on electronics manufacturers, brand owners, and retailers and encourages them to send used electronics (collected from the public, businesses, and within their own organizations) to third party certified electronics refurbishers and recyclers. The program also recognizes significant achievements to incorporate sustainability and life cycle thinking into products, programs, and services. The Challenge aims to:

- Increase rates of responsible electronics recycling and reuse,
- Promote data transparency and accountability by making data publicly available, and
- Reduce negative environmental effects across the lifecycle of electronics.

In 2020, Challenge participants reused or recycled 176,494 tons of electronics and avoided the equivalent of nearly 500,000 metric tons of carbon dioxide emissions.



DRAFT: SUBJECT TO CHANGE

Appendix B: Summary of Public and Federal Comments and EPA's Response

Comment Statistics

EPA received 156 comment letters from the public. Commenters included private citizens, non-governmental organizations, government agencies (e.g., local, county, tribal, and state agencies), Congress, recycling service providers and consultants, recycling and waste management trade associations, academia, and other industry trade associations and groups (including those for raw material and packaging manufacturers). EPA also received comments from six other federal agencies, and the United States Government Accountability Office.

During the public comment period, 47 America Recycles Network members submitted comments, which represented 30 percent of total commenters. Key America Recycles Network members that submitted comments include: The Recycling Partnership, National Waste and Recycling Association, Solid Waste Association of North America, Institute of Scrap Recycling Industries, Association of State and Territorial Solid Waste Management Officials, GreenBlue Institute, The Sustainable Packaging Coalition, Environmental Research and Education Foundation, U.S. Conference of Mayors, and Waste Management. Senator Thomas R. Carper also submitted comments.

Support for the *National Recycling Strategy*

Overall, commenters were supportive of a *National Recycling Strategy* to create a stronger, more resilient, and cost-effective U.S. municipal solid waste recycling system. All commenters mentioned that they supported the development of a *National Recycling Strategy*, and many highlighted it was an important part of Sustainable Materials Management and a Circular Economy.

Responses to the Key Questions

EPA asked six key questions that it hoped commenters would respond to during the comment period. Summaries of these responses are provided here.

Of the proposed actions, which are the most important and would have the greatest positive impact at the local, regional, and national level?

Commenters expressed support for the three overarching objectives – 1) Reducing Contamination, 2) Increasing MRF Processing Efficiency, and 3) Improving Markets for Recyclables – with a slight prioritization of Objective 3 over the other two. In addition, one commenter stated that the most important objective should be to

Increase collection of recyclables, which was not one of the three objectives identified in the draft strategy. Some commenters identified actions they thought were the most important; the most frequent actions identified were:

- Action 2.3: Continue to fund research and development of new technologies and processes that result in environmental gains from improvements in manufacturing and processing efficiencies;
- Action 2.1: Improve understanding of available recycling infrastructure and needs;
- Action 2.4: Increase consideration of the sorting process in the design of new products;
- Action 3.5: Increase demand for recycled materials through policies, programs, initiatives, and incentives, focusing on materials with less mature markets;
- Action 1.1: Enhance education and outreach to consumers on the value of recycling and how to recycle properly;
- Action 1.2: Increase coordination, availability and accessibility of information on recycling programs and policies at the federal, state, tribal and local levels;
- Action 2.2: Increase awareness of available public and private funding and incentives and effective strategies to access the funding; and
- Action 2.5: Develop and implement national recycling system definitions, measures, targets, and performance indicators.

What are the key implementation steps and milestones necessary to successfully implement these actions?

Commenters expressed the need to implement strong policy actions, establish metrics for measuring success and identifying gaps, increase education and outreach to consumers, increase access to funding, increase collection, provide additional funding opportunities, and establish federal incentives.

Is your organization willing to lead an action? Or collaborate with others to implement the actions? What factors would your organization take into account when considering whether to lead an action?

Many organizations noted that they were willing to work with EPA or others on actions in the *National Recycling Strategy*. Seventeen commenters indicated a willingness to lead an action. Most of these commenters did not specify an action that they would like to lead but indicated a general willingness to take on a leadership role.

What are the most important roles and/or actions for federal agencies to lead?

Commenters identified the following as the most important roles and/or actions for federal agencies to lead:

- Establish national policies and programs, including educational programs and guidelines for consistent recycling across the U.S.;
- Coordinate with stakeholders and other federal agencies;
- Take regulatory action;
- Ensure consistent access to recycling programs across the nation;
- Provide funding to local and regional programs;
- Maintain nationwide data to track progress on the *National Recycling Strategy*;
- Provide a database of recycling resources;
- Establish roles for various stakeholders in the *National Recycling Strategy*; and
- Support the development of recycling markets.

Are there other actions that should be included in the National Recycling Strategy?

Commenters suggested additional objectives or actions that they felt were important to include in the 2021 Strategy. Many of them were very specific and aimed at refining/defining actions. Other suggestions were much broader and would have a pronounced effect on the *National Recycling Strategy* if incorporated. A sample of these themes includes:

- Expanding the scope of the *National Recycling Strategy* to reflect a circular economy approach and/or include waste reduction, reuse, and/or waste-to-energy;
- Explicitly incorporating environmental justice and equity into the *National Recycling Strategy*;
- Expanding the scope of the *National Recycling Strategy* beyond municipal solid waste to include construction and demolition materials, coal combustion residuals, non-hazardous secondary materials, textiles, solar panels, wind turbines, batteries, propane tanks, electronics, and organics (food and yard waste);
- Expanding the scope of the *National Recycling Strategy* beyond mechanical recycling to include advanced/chemical recycling;
- Incorporating extended producer responsibility (EPR) into the *National Recycling Strategy*;
- Adding an objective/actions to increase the access to and collection of recyclable materials;
- Elevating measurement, data collection, and analysis from actions to an objective;
- Striving to create a uniform national recycling system; and
- Developing a dedicated funding system for recycling.

Other Comments

In addition, commenters had many specific recommendations to the proposed actions within the draft strategy. Many offered expansions to the scope of existing actions, and others suggested completely new actions. In other instances, commenters provided information or considerations that could be useful in the implementation of the proposed actions.

How EPA Addressed the Comments

Based on input received during the public comment period, EPA modified the scope of the *2021 Strategy* to better reflect how improving recycling is a key component of a circular economy and emphasized that this strategy focuses on traditional MSW recycling, but future strategies will more fully address other key issues critical to achieving a circular economy. For example, EPA anticipates issuing subsequent strategies to include additional activities geared toward source reduction and materials reuse and waste streams, such as organics, electronic waste, and industrial materials (e.g., construction and demolition debris).

To address comments on specific actions, when possible, EPA incorporated the new ideas into existing actions or created new actions. Many commenters requested that policies, programs, or topics be incorporated into actions. In these cases, EPA tried to provide additional examples of the work that could fall underneath each action, but it was not always practical to list every possibility. Similarly, some comments focused on providing information that could be used to implement an action, and EPA will ensure those suggestions are carried forward as the Agency moves into the development of the implementation plan for the *National Recycling Strategy*. EPA has compiled the additional information and suggestions and categorized them by their action numbers. Moving forward, EPA will ensure that the entities engaged in implementing each action are provided with those comments.

EPA has also strived to better integrate equity and environmental justice into the Strategy, based on comments received. The Strategy indicates that all objectives and actions should be implemented with an environmental justice lens that ensures equity in the Strategy outcomes. In addition, EPA enhanced language on increasing access to recycling facilities, which is often lacking in under resourced and rural communities. The Strategy now reflects that various educational messages are needed to be responsive to and inclusive of diverse communities. Lastly, the Strategy now reflects that when recovery facility and collection equipment is upgraded, considerations should be taken so that it is also safer and healthier for recovery facility and collection workers.

Appendix C: Federal Partner Recycling Profiles

EPA collaborates across the federal government on recycling. Various federal agencies play a role in supporting the recycling system. The following information reflects some actions several agencies are taking to support recycling.

Agency name: Federal Trade Commission (FTC)

Physical location: Washington, D.C.

Agency's mission: To prevent business practices that are anticompetitive or deceptive or unfair to consumers; to enhance informed consumer choice and public understanding of the competitive process; and to accomplish this without unduly burdening legitimate business activity.

Context and applicability to recycling: The FTC addresses recycling issues through the agency's Guides for the Use of Environmental Marketing Claims (16 C.F.R. Part 260). The Guides help marketers avoid making environmental marketing claims that are unfair or deceptive under Section 5 of the FTC Act, 15 U.S.C. 45. The FTC has authority to take enforcement action if a marketer makes any deceptive or unfair environmental claims. In any such enforcement action, the Commission cannot rely on its Environmental Marketing Guides, and, therefore, must prove that the challenged act or practice is unfair or deceptive in violation of the FTC Act.

Explicit roles and actions in recycling: The FTC has no specific, statutorily-directed role in advancing or promoting recycling. Rather, the FTC's efforts focus on helping consumers by combating deceptive or unfair claims in the marketplace.



Agency name: National Science Foundation

Physical location: Alexandria, VA

Agency's mission: Established by the National Science Foundation Act of 1950 (P.L. 81-507), NSF is an independent federal agency charged with the mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF is unique in carrying out its mission by supporting research across all fields of science, technology, engineering, and mathematics, and all levels of STEM education. NSF investments contribute significantly to the economic and national security interests of the nation and development of a future-focused science and engineering workforce that draws on the talents of all Americans that creates new businesses, new jobs, and more exports.

DRAFT: SUBJECT TO CHANGE

Appendix C: Federal Partner
Recycling Profiles

47

Context and applicability to recycling: NSF fulfills its mission chiefly by issuing limited-term grants to fund specific research proposals that have been judged the most promising by a rigorous and objective merit-review system. Innovative and meritorious research proposals related to recycling and alternative materials may be supported through a variety of defined [funding opportunities](#).

Explicit roles and actions in recycling: NSF supports basic research that develops fundamental knowledge and engineering advances pertaining to recycling, polymer chemistry and physics, alternative materials, sustainable and circular processes, the fate and impact of plastic materials lost to the environment, and pollution mitigation, control systems, and remediation. NSF's Engineering Directorate is home to several programs and solicited opportunities that support research in these areas, including programs offered by the Divisions of [Chemical, Bioengineering, Environmental and Transport Systems](#) and [Civil, Mechanical, and Manufacturing Innovation](#) and the Emerging Frontiers in Research and Innovation program's solicitation on Engineering the Elimination of End-of-Life Plastics ([NSF 19-599](#) and [NSF 20-614](#)). Similarly, the Mathematical and Physical Sciences Directorate offers relevant programming through the Divisions of [Chemistry](#) and [Materials Research](#). An agency-wide initiative, Critical Aspects of Sustainability ([PD 19-9102](#)), also supports recycling-related research. Searchable abstracts of past and current projects can be found using the [NSF award search](#) engine.

Examples of partners and stakeholders: NSF funds research and education through grants and cooperative agreements to approximately 2,000 institutions of higher education, K-12 school systems, businesses, informal science organizations, and other research organizations throughout the U.S. NSF also partners with other Federal agencies to fund research of mutual interest.

Agency name: Office of the United States Trade Representative (USTR)

Physical location: Washington, D.C.

Agency's mission: The Office of the U.S. Trade Representative (USTR) is responsible for developing and coordinating U.S. international trade, commodity, and direct investment policy, and overseeing negotiations with other countries. USTR seeks to ensure that our international trade and environmental policies are mutually supportive. Our bilateral and international trade agreements and initiatives are valuable tools to protect the environment and level the playing field for the American worker and for U.S. industry abroad, and we are using these agreements and initiatives to tackle pressing environmental challenges.

Context and applicability to recycling: USTR seeks to advance a trade facilitative approach to support resource-efficiency. This includes enabling environmentally-sound trade and management of plastic waste and scrap, so that materials can be recovered, recycled, and returned to commerce. USTR engages bilaterally and in international trade agreements, as well as international forum like the WTO and OECD to advocate for mutually supportive trade and environmental policies.

Explicit roles and actions in recycling: Not applicable.

Examples of partners and stakeholders: Congress, non-governmental, and industry stakeholders.



Agency name: U.S. Agency for International Development

Physical location: Washington, D.C.

Agency's mission: USAID is the world's premier international development agency and a catalytic actor driving development results. USAID's work advances U.S. national security and economic prosperity, demonstrates American generosity, and promotes a path to recipient resilience.

Context and applicability to recycling: Over the past twenty years, two major trends have contributed to an ocean plastic crisis. The first is the rapid growth of plastic production and plastic packaging use across the world, in rich and poor countries alike. The second is increasing incomes and urbanization in low and middle-income countries in the developing world, leading to more waste generation per person. Plastic waste is increasing at the fastest rate in the developing world where waste management systems, infrastructure, and governments struggle to keep pace and are not primed for private sector investment. As the leading development agency for the U.S. government, USAID is responding to the ocean plastic crisis by helping developing countries, and particularly cities along rivers and in coastal areas, to develop the enabling conditions for the 3Rs (reduce, reuse, recycle).

Per the 2020 Save our Seas 2.0 Act, USAID is partnering with developing countries to build the foundations for a circular economy by:

- First, incentivizing recycling of plastic waste through policies and partnerships with the private sector, including working closely with vulnerable populations involved in the waste value chain to ensure they are involved and protected.
- Second, strengthening local and national governments' capacity to manage their solid waste and build a circular economy - including through better planning, financial sustainability, and enforcement of regulations.

- Third, building on our long history of promoting innovation, we invest in right-sized technology and infrastructure, and in the development and scaling up of new business models.
- Finally, encouraging behaviors that reduce, reuse, and recycle plastic waste.

Explicit roles and actions in recycling: USAID has several ongoing programs and initiatives that seek to address ocean plastic pollution internationally and improve solid waste management systems:

- USAID's Clean Cities, Blue Ocean (CCBO) is the Agency's flagship program on ocean plastic pollution. The five-year, global program (2019-2024) is working in rapidly urbanizing focal countries across Asia and Latin America and the Caribbean to target the sources of ocean plastic pollution. CCBO works to improve solid waste management systems in areas that are at the heart of the global plastic pollution crisis, build capacity and commitment for the 3Rs, and promote sustainable social and behavior change. In support of these objectives, CCBO partners with local and multinational corporations to effectively leverage private sector expertise, investment, and supply chains.
- USAID's five-year (2016-2021) Municipal Waste Recycling Program (MWRP) reduces land-based sources of ocean plastic waste in four of the top five contributing countries — Indonesia, Philippines, Sri Lanka, and Vietnam. Through MWRP, USAID has provided 30 grants and technical assistance to a variety of local actors, such as NGOs and recycling entrepreneurs, for innovative, local, and sustainable solutions to improve solid waste management and waste recycling efforts in and around targeted cities. As a result, people across the four countries are benefiting from cleaner and healthier cities with improved waste management services. Having recognized their effectiveness, local governments plan to extend and replicate these approaches.
- In June 2019, USAID launched an agreement leveraging more than \$100 million in a private-sector investment strategy managed by Circulate Capital and funded by multinational companies, including PepsiCo, Procter & Gamble, Dow, Danone, Unilever, and Coca-Cola. USAID provides a \$35 million, 50 percent loan-portfolio guarantee through the U.S. International Development Finance Corporation (DFC), which is used to incentivize private capital investment in the recycling value chain in South and Southeast Asia. At least 50 percent of the total facility must be used for loans in four countries that align with USAID's MWRP (Indonesia, Philippines, Vietnam, and Sri Lanka).
- Subject to availability of funding, USAID plans to expand its work through field-based programs in key countries of Asia, Latin America and the Caribbean, and Africa. To prepare for these new programs addressing ocean plastic pollution, USAID is currently training staff members on governance, finance, technologies, and policies to support solid waste management and the circular economy.

You can find more information on all of USAID's ocean plastic pollution and solid waste management programming at <https://urban-links.org/issue/ocean-plastic-pollution>.

Examples of partners and stakeholders: USAID works with a diverse group of stakeholders across the solid waste management system, including local and national governments, NGOs, academia, donor organizations, and members of the private sector internationally.



Agency name: U.S. Department of Commerce

Physical locations: Washington, D.C., Silver Spring and Gaithersburg, MD, as well as multiple U.S. and Overseas Offices

Agency's mission: The mission of the Department of Commerce is to create the conditions for economic growth and opportunity. The Department of Commerce promotes job creation and economic growth by ensuring fair trade, providing the data necessary to support commerce and constitutional democracy, and fostering innovation by setting standards and conducting foundational research and development. Through our bureaus and 46,608 employees (as of January 31, 2018) located in all 50 states, every U.S. territory, and more than 86 countries, we provide U.S.-based companies and entrepreneurs invaluable tools through programs such as the Decennial Census, the National Weather Service, NOAA Fisheries, and the Foreign Commercial Service. Among many other functions, the Department oversees ocean and coastal navigation, helps negotiate bilateral trade agreements, and enforces laws that ensure a level playing field for American businesses and workers.

Context and applicability to recycling: Department of Commerce officials regularly consult with private sector stakeholders and non-governmental organizations, and work with state, local, and foreign governments to support U.S. firms, including solid waste management and recycling firms, both domestically and abroad. Through its various bureaus, the Department works to foster innovation and the international competitiveness of U.S. solid waste management and recycling firms, as well as that of the companies using recycled materials.

Department of Commerce's explicit roles and actions in recycling by bureau:



National Institute of Standards and Technology (NIST)

NIST is developing a Circular Economy program with subprograms enabling materials design to improve recyclability (e.g., through use of machine learning technologies established as part of the [Materials Genome Initiative](#)); supporting development of critical infrastructure for circularity; and supporting improved performance and efficiency of recycling instrumentation and equipment. NIST is also establishing work to support the data infrastructure necessary for a National approach to recycling and tools to support the entire supply chain (for example, through our Office of Data and Informatics, Manufacturing Extension Partnership Program and Applied Economics Office). Finally, NIST supports its other agency partners through measurement tools, data and standards to better understand and reliably quantify environmental impacts of mismanaged waste and the linear economy (for example, in partnership with [Hawaii Pacific University and the Center for Marine Debris Research](#)).



National Oceanic and Atmospheric Administration (NOAA)

NOAA's Mission: Science, Service and Stewardship

1. To understand and predict changes in climate, weather, oceans and coasts;
2. To share that knowledge and information with others; and
3. To conserve and manage coastal and marine ecosystems and resources.

While NOAA does not have explicit mandates or regulations related to recycling, [NOAA's Marine Debris Program](#) is the U.S. federal government lead for addressing marine debris (through the Marine Debris Act, or Save Our Seas Act). Marine debris results from solid waste that is not properly disposed of, managed, or recycled, and is deposited or washed into waterways or coastal areas. The Marine Debris Program works at the national, state, and local levels to prevent marine debris from entering the environment (including through increasing recycling), remove priority debris from coastal areas as well as to study and understand the scope and scale of marine debris in the U.S. and to understand its impacts on the environment.

The NOAA Marine Debris Program is dedicated to reducing and preventing the impacts of marine debris by conducting education and outreach and supporting practical solutions to marine debris problems. NOAA accomplishes this by increasing participation in education and outreach opportunities, developing outreach products that raise awareness of marine debris, and reducing waste and increasing recycling in internal operations. NOAA's Marine Debris Program also provides grant funding to support projects across the country that use outreach and education as a way to help change behavior and result in more sustainable practices to reduce the volume of waste produced, increase recycling, or to ensure more effective practices at managing waste.

International Trade Administration (ITA)

The mission of ITA is to create prosperity by strengthening the international competitiveness of U.S. industry, promoting trade and investment, and ensuring fair trade and compliance with trade laws and agreements. ITA assists U.S. recycling firms in finding new and expanding existing export markets for their equipment and materials. ITA's team of environmental technologies industry and trade specialists, located in the United States and overseas, is dedicated to enhancing the global competitiveness of the U.S. industry, expanding market access, and increasing exports. The [Environmental Technologies Top Markets Report](#) highlights overseas markets where the U.S. Government is best able to leverage finite resources to generate export opportunities for U.S. environmental technologies, goods, services, and products, including for the recycling sector. Such market analysis also serves to inform ITA's trade promotion work, including under the auspices of ITA's Environmental Technologies Global Team. ITA employs the Global Team to share information on global policy issues impacting the industry and international markets, and to work with U.S. companies to promote trade in recycling equipment and recycled materials. ITA is assisted in these efforts by the [Environmental Technologies Trade Advisory Committee \(ETTAC\)](#) which advises the Environmental Trade Working Group of the Trade Promotion Coordinating Committee, through the Secretary of Commerce, on the development and administration of programs to expand U.S. exports of environmental technologies, goods, services, and products.

Partners and stakeholders: The Department works with the full range of stakeholders on matters relating to recycling, including standards and certification organizations, professional and trade associations, non-profit and global organizations, and government entities at the state, local, and federal level, as well as individual solid waste management, recycling, and materials firms.

Agency name: U.S. Department of Energy (DOE)

Physical location: Washington, D.C.

Agency's mission: The mission of the Energy Department is to ensure America's security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.

Context and applicability to recycling: Transitioning from a linear to a circular economy provides significant energy and emissions savings, and is a key focus area for the Department of Energy (DOE). DOE is primarily a technology-funding organization, competitively competing awards for research, development and demonstration of energy-related technologies. In addition, DOE sponsors 17 National Labs, which have delivered tremendous scientific and technological impact to address the nation's greatest needs. Regarding recycling, the priority is to develop efficient and economic

pathways to recycle energy-intensive materials, such as metals and plastics, and for materials that enable renewable energy, such as polymer matrix composites for vehicles and wind blades and critical materials used for wind turbines and batteries.

Explicit roles and actions in recycling: DOE has made several strategic investments to develop technology for improved recycling systems. These efforts span from fundamental research to technology development to industry partnerships. Examples include:

- IACMI – The [Composites Institute](#), a Manufacturing USA Institute, was established in 2015 to develop lower-cost, higher-speed, and more efficient manufacturing and recycling processes for advanced polymer matrix composite materials.
- The [REMADE Institute](#), a Manufacturing USA Institute, was established in 2017 to address recycling challenges across the supply chain for metals, fibers, plastics, and e-waste.
- The [BOTTLE Consortium](#) is a National Lab-led consortium focused on developing chemical and biological pathways to upcycle plastics and designing novel plastics that are recyclable-by-design.
- Energy Frontier Research Centers bring together creative, multi-disciplinary scientific teams to tackle the toughest scientific challenges preventing advances in energy technologies. Two centers were selected in 2020 to address challenges associated with plastic waste:
 - [Center for Plastic Innovation](#)
 - [Institute for Cooperative Upcycling of Plastics](#)
- Better Plants is a program that partners with industry to reduce their energy and emissions impacts. As part of this broader program, the Waste Reduction Pilot was recently launched to share best practices for reducing waste, including through recycling.
- The [ReCell Center](#) is a national collaboration of industry, academia and national laboratories working together to advance recycling technologies along the entire battery life-cycle for current and future battery chemistries.

Examples of partners and stakeholders: DOE funds research, development and deployment through cooperative agreements and grants. Awardees include universities, National Labs, Non-governmental organizations (NGOs), and small, medium and large businesses.



Agency name: U.S. Department of State

Physical location: Washington, D.C.

Agency Mission: The mission of the Department of State is to represent America's foreign policy abroad, and to advance the interests and security of the American people.

Context and Applicability to Recycling: The Department of State has two offices that lead in recycling initiatives and support related efforts in international fora: the Office of Management Strategy and Solutions (M/SS) and the Office of Environmental Quality (ENV) in the Bureau of Oceans and International Environmental and Scientific Affairs (OES). Several missions abroad and domestic operations implement recycling initiatives with support from M/SS and OES/ENV.

Explicit Roles and Action in Recycling:

Management and Operations: With 22,000 facilities, 15,000 vehicles, and 75,000 personnel in more than 190 countries, the U.S. Department of State has a large global footprint to leverage to highlight recycling. Domestically, the Department works to reduce waste production and improve recycling, typically reaching 49% or greater waste diversion in its portfolio. The Department diverted 40% of nearly 3.5 million metric tons of construction and demolition waste in FY 2018.

Overseas, many areas lack municipal waste management infrastructure but U.S. embassies and consulates work to develop creative solutions to reduce, reuse, and recycle and maximize efficiency. Examples of these waste management efforts include waste reduction and recycling campaigns, auditing local waste management infrastructure, upgrading on-site waste management capabilities, and composting.

The Department supports ongoing sustainability efforts through its annual Greening Diplomacy Initiative Awards and other programs. More information on the Department's sustainability efforts are available at state.gov/eco-diplomacy and in the annual [Sustainability Report and Implementation Plan](#).

Policy Development: The [Office of Environmental Quality](#) (ENV) develops and coordinates U.S. policy on international waste management issues, including international efforts relating to plastic pollution, land-based sources of marine debris, electronic waste, and hazardous wastes. ENV leads U.S. participation in relevant multilateral agreements and forums, such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, and addresses related issues, including recycling, through close collaboration with the U.S. interagency and outreach efforts.

ENV has led campaigns to educate posts and Department staff on plastic pollution and waste management through a webinar series and recycling challenge, and facilitates communication with U.S. companies regarding international commercial, trade, and investment conditions in this sector. ENV also coordinates a monthly U.S. government interagency call on plastic waste and scrap to provide updates and support collaboration and information exchanges on relevant issues, including recycling initiatives both domestically and abroad. Additionally, ENV regularly conducts stakeholder outreach to U.S. industry and environmental NGOs to exchange information relevant to developing U.S. policies and negotiating positions in international fora. Finally, ENV uses economic support funds to support projects abroad on improving solid waste management and encouraging innovation along the entire value chain.



Agency name: U.S. General Services Administration (GSA)

Physical location: Washington, D.C.

Agency's mission: GSA's mission is to deliver value and savings in real estate, acquisition, technology, and other mission-support services across government. Through GSA's Public Buildings Service (PBS), Federal Acquisition Service (FAS), and various staff offices, GSA provides workspace to more than one million federal civilian workers, oversees the preservation of more than 480 historic buildings, and facilitates the federal government's purchase of high-quality, low-cost goods and services from reliable commercial vendors.

Context and applicability to recycling: GSA promotes recycling through various programs, standards, and tools, as well as through the Federal Management Regulation (FMR) and associated FMR Bulletins regarding personal property management. GSA's GSAXcess® program facilitates reuse of excess and surplus federal personal property like furniture, motor vehicles, computers, and other equipment by transferring it to other federal agencies or State Agencies for Surplus Property for subsequent donation to eligible non-federal entities. In FY 2019 and FY 2020 through mid-April, GSAXcess enabled the reuse of over \$1.8 billion worth of such items from dozens of agencies, keeping these items out of the solid waste stream while stretching federal and state taxpayer dollars. GSA's Facilities Standards for the Public Buildings Service (P100) establishes sustainable performance criteria for the diversion of construction and demolition waste from landfills through reuse, recycling, and donation. PBS's national specifications for contracted facilities operations services establish requirements for recycling of municipal solid waste generated at GSA-managed facilities. GSA tracks recycling and annually reports progress on waste management and diversion performance metrics to the White House Council on Environmental Quality (CEQ).

Explicit roles and actions in recycling: Alongside the U.S. Environmental Protection Agency (EPA), GSA co-chairs the Sustainable Acquisition and Materials Management (SAMM) Working Group to provide recommendations to federal agencies on the implementation of federal sustainable acquisition and materials management policies, including the procurement of products containing recovered materials. GSA provides education and tools to support recycling and the procurement of products made with recovered materials through the Sustainable Facilities Tool, or [SFTool.gov](https://www.gsa.gov/transaction/sftool). GSA's [GSAXcess](https://www.gsa.gov/transaction/gsaaccess)[®] program facilitates reuse of excess and surplus federal personal property. GSA's National Capital Region (NCR) offers Federal agencies in the Washington, D.C. metro area the opportunity to participate in GSA NCR's recycling sales program, whereby participating federal agencies and recycling contractors share revenue generated through recycling of municipal solid waste generated in federal buildings.

Examples of partners and stakeholders: In GSA-managed and leased buildings, GSA relies upon federal tenant agencies to participate in recycling programs and on facilities operations and construction contractors, as well as lessors, to offer recycling services to the federal government. GSA's [GSAXcess](https://www.gsa.gov/transaction/gsaaccess)[®] program works with several stakeholders, including public agencies and eligible nonprofit organizations, to assist federal customer agencies with the reuse, donation, or sale of excess federal property.



DRAFT: SUBJECT TO CHANGE





**NATIONAL RECYCLING STRATEGY PART 1 OF MOVING TOWARDS A
CIRCULAR ECONOMY FOR ALL - APPENDIX C**

**National Recycling Strategy:
Part 1 of Moving Toward a Circular Economy
for All**

Briefing for National Environmental Justice Council
June 17, 2021

U.S. Environmental Protection Agency

1



Outline of Presentation

1. Request to NEJAC
2. Purpose and Scope of National Recycling Strategy
3. Process for Developing Strategy
4. Highlights from Public Comments
5. Examples of Actions in Strategy
6. Next Steps



Questions for NEJAC Members

Request for Today:

1. Does the National Recycling Strategy effectively address communities with EJ considerations?
 - If not, what actions or additions would improve it?
2. How can EPA most effectively engage with stakeholders during implementation of the National Recycling Strategy to ensure our actions to develop a circular economy are inclusive and benefit all Americans?

Request by July 2nd:

1. Are there organizations EPA should engage to inform the Strategy's implementation plan?
 - NEJAC members may send contact names to EPAREcycles@epa.gov by July 2nd.

Importance of National Recycling Strategy

- Recycling is an important part of a circular economy.
- Natural resource extraction and processing make up approximately 50 percent of the total greenhouse gas (GHG) emissions.
- Increased public and congressional attention on plastics in the environment, environmental justice concerns in countries to whom the U.S. exports plastics and the climate impacts of the increasing generation of single use plastics.
- Recycling and reuse activities create over 680,000 jobs, \$37.8 billion in wages; and \$5.5 billion in tax revenues.
- Inadequate infrastructure and systems result in some materials not be recycled, posing a challenge for communities and local governments who manage materials.





Scope of National Recycling Strategy

- Focuses on enhancing the national municipal solid waste (MSW) recycling system
- Identifies stakeholder-led actions to create a stronger, more resilient, less impactful, and more cost-effective MSW recycling system
- Acknowledges that recycling alone cannot help us achieve a circular economy
- EPA to develop additional strategies to guide actions related to other materials (food waste) and pathways (material reuse, waste reduction)



Stakeholder Engagement in Developing Strategy

February – September 2020:

- Engaged federal agencies and active America Recycles Network members to develop draft National Recycling Strategy

October 2020:

- Released Strategy for 60-day public comment period

November 2020:

- Announced National Recycling Goal to increase Recycling Rate to 50% by 2030

January – June 2021:

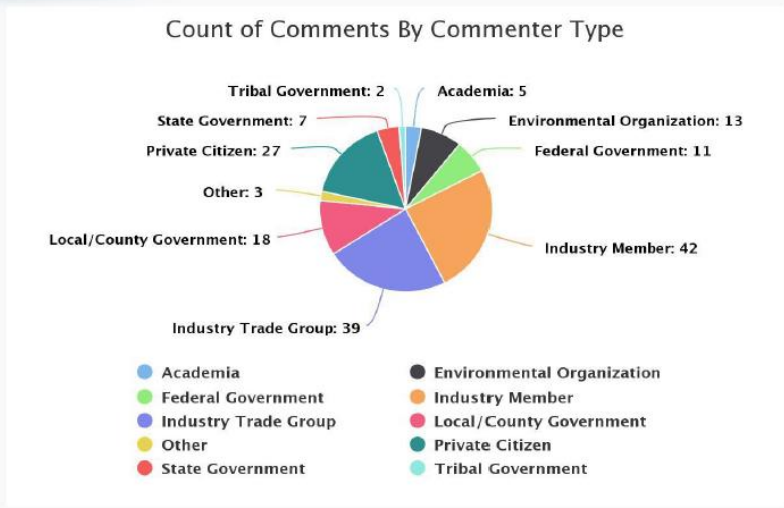
- Revised Strategy based on public comments and Biden administration priorities
- Seek NEJAC feedback on incorporation of EJ in Strategy





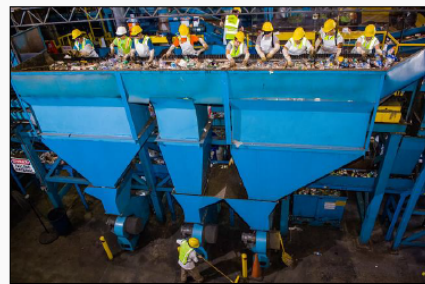
Public Comments on Draft Strategy

- 156 Comment Letters



Summary of EJ Comments on Draft Strategy Released in October 2020

- An environmental justice and health equity lens is needed in all decisions and should be reflected throughout strategy.
- Assess and increase access to recycling for underserved communities, including multi-family households and rural areas.
- Develop multiple sets of recycling education and outreach messages that resonate with different groups (e.g. using diverse focus groups); empower communities to determine which messages are most appropriate for their local situations and cultures.
- Assess if and how the recycling system is disproportionately affecting marginalized and overburdened communities.
- Provide funding for organizations working in those communities most detrimentally impacted by current facilities and waste infrastructure.





EJ & Public Health Considerations

- Waste management facilities impact:
 - human health
 - ecosystem services
 - property values
 - aesthetic and recreational values
 - land productivity
- Communities with environmental justice concerns:
 - shoulder the burden of disposal facilities
 - are most impacted by waste management issues
- Some U.S. waste is exported to countries for recycling, even though they are not able to manage those materials in an environmentally sound manner



Strategy Objectives

- A: Improve Markets for Recycled Commodities
- B: Increase Collection and Improve Materials Management Infrastructure
- C: Reduce Contamination in the Recycled Materials Stream
- D: Enhance Policies and Programs to Support Circularity
- E: Standardize Measurement and Increase Data Collection





Example Action in Objective A: Improve Markets for Recycled Commodities

- A1.4. Create market development toolkits for communities.
 - Initiate community engagement and introduce market development concepts to communities facing environmental justice concerns, so they can consider recycling markets as a potential redevelopment option.



Example Action in Objective B: Increase Collection and Improve Materials Management Infrastructure



- B1.3. Improve recycling infrastructure.
 - Make improvements to the recycling infrastructure, ensure access to recycling is widespread, and environmental justice is considered in the siting of new infrastructure.
 - When recovery facility and collection equipment is upgraded, considerations should be taken so that the upgraded equipment is also safer and healthier for recovery facility and collection workers.



Example Action in Objective C: Reduce Contamination in the Recycled Materials Stream

- C1.1. Develop messaging and educational materials about the importance and value of recycling.
 - Communications and materials will be developed to reach diverse audiences.
 - When possible, recycling messages should be translated into multiple languages.
 - Federally funded messaging will be Section 508 and Americans with Disabilities Act compliant.



Example Action in Objective C: Reduce Contamination in the Recycled Materials Stream

- C1.2. Develop common recycling messages on key issues to promote awareness, increase recycling participation and ensure a more consistent stream of recyclable material.
- A variety of educational messages are needed to be responsive to and reflective of diverse communities.





Next Steps

- Obtain feedback from NEJAC and others (e.g. final interagency review, etc.)
- Release National Recycling Strategy
- Develop Implementation Plan for Strategy
 - Engage existing and additional stakeholders
 - Aim to integrate EJ into all actions
 - Stakeholders across the supply chain, including governments make commitments
- Develop Part II, III to the Strategy focusing on plastics, food waste, and other key aspects of a circular economy

15



Discussion

1. Does the National Recycling Strategy effectively address communities with EJ considerations?
 - If not, what actions or additions would improve it?
2. How can EPA most effectively engage with stakeholders during **implementation** of the National Recycling Strategy to ensure our actions to develop a circular economy are inclusive and benefit all Americans?

Strategy Objectives

- A. Improve Markets for Recycled Commodities
- B. Increase Collection and Improve Materials Management Infrastructure
- C. Reduce Contamination in the Recycled Materials Stream
- D. Enhance Policies and Programs to Support Circularity
- E. Standardize Measurement and Increase Data Collection



Seeking Contacts for Developing Implementation Plan

Request by July 2nd:

- Are there organizations EPA should engage to inform the Strategy's implementation plan?
 - NEJAC members may send contact names to EPAREcycles@epa.gov by July 2nd.

WRITTEN PUBLIC COMMENTS SUBMITTED - APPENDIX D

Full Name (First and Last): David Dow

Name of Organization or Community: Private citizen: retired scientist and environmental activist on Cape Cod

City and State: East Falmouth, Ma.

Type of Comment: Written Comment Only

Brief description about the concern: I am concerned about toxic chemicals (RDX); perchlorate; PFAS and heavy metals) entering the Upper Cape Water Supply Reserve from Army National Guard Training at Camp Edwards. The 2002-chapter 47 legislation passed by the Massa. Legislature required training on the northern 15,000 acres at Joint Base Cape Cod be compatible with protection of our groundwater and conservation of over 30 state-listed species. I don't feel that the ANG Environmental Assessment for the Multipurpose Machine Gun Range meets these standards. I served on the MMR Community Working Group which developed the compromise that lead to the Chapter 47 legislation. At the request of the Social and Environmental Action Committee (SEAC) at the Unitarian Universalist Fellowship of Falmouth (UUFF), I am writing a series of articles on the: Challenges Facing the Cape Cod Aquifer. One installment covers toxic chemical challenges emanating from JBCC.

What do you want the NEJAC to advise EPA to do? : I want NEJAC to request EPA Region 1 to examine the effects of mechanical removal of munitions and ammunition in the 5000 acre buffer area for the Multipurpose Machine Gun Range on toxic contamination of the groundwater in the Upper Cape Water Supply Reserve which supplies water to the Town of Falmouth (replacing water from the Ashumet Valley Public drinking water well which was closed in the mid-1980's due to contamination by the Ashumet Valley Plume from JBCC). More recently PFAS chemicals have been detected in public and private drinking water wells in Falmouth and Mashpee from the off base AVP.

My name is Dr. David Dow and I am a retired scientist/grassroots environmental activist living on Cape Cod, Ma. Recently I was asked by the Social and Environmental Action Committee (SEAC) at the Unitarian Universalist Fellowship of Falmouth (UUFF) to write a series of articles on the: Challenges Facing the Cape Cod Aquifer. One installment deals with toxic chemical contamination of our surface and groundwater. I choose the Waquoit Bay Watershed within the Sagamore Lens (covers groundwater on Upper and Mid-Cape regions) as a case study for this series of installments on water quantity and quality challenges. I participated in the EPA-lead Waquoit Bay Watershed Ecological Risk Assessment project which identified nutrients as the major human stressor in this groundwater-based watershed. "Nitrogen" is the nutrient of concern in Waquoit Bay and "Phosphorus" is the concern in Ashumet Pond. Eutrophication from "N" and "P" causes water quality and habitat losses in Waquoit Bay and Ashumet Pond. In response to this situation the Cape Cod Commission; Massa. Department of Environmental Protection and EPA Region 1 acted under the Clean Water Act to reduce "N" loading from septic systems via the development of Town or Water/Wastewater District Comprehensive Wastewater Management Plans (CWMPs). The Waquoit Bay Watershed includes the towns of Falmouth, Mashpee and Sandwich plus JBCC. It is estimated that over the next 20-30 years, the CWMP programs will cost \$2-8 billion with half the infrastructure costs being covered by state/federal grants. One of my installments on the Cape Cod Aquifer challenges focuses on nutrients. Since the late 1980's I have been engaged in the dialog on the Safe Drinking Water Act/Superfund cleanup at Joint Base Cape Cod. The Yearling Meadows development where I live in East Falmouth is underlain by the Ashumet Valley Plume (AVP). Contaminants of

concern from the AVP closed the Falmouth Ashumet Valley Public Drinking Water Well. To make up for this water shortage, we received water from a well on the Upper Cape Water Supply Reserve (UCWSR) which is located on the northern 15,000 acres on JBCC. I served on the MMR Community Working Group which came up with a compromise that Army National Guard military training at Camp Edwards be compatible with protection of the groundwater at the UCWSR and conservation of over 30 state-listed species. In more recent times the Air Force Civil Engineering Center found PFAS chemicals in public and private drinking water wells in Falmouth and Mashpee due to contamination from the AVP. This monitoring endeavor utilized the EPA Hazard Level of 70 ppt as the health level of concern. In 2020, Ma. DEP issued a maximum contaminant level of 20 ppt for the sum of 6 PFAS chemicals. Ma. DEP recently made this the monitoring target for AFCEC at the CS-23 plume where PFAS was added to the list of contaminants of concern.

I would like NEJAC to request EPA Region 1 to study the movement of toxic chemicals (RDX; perchlorate; PFAS; heavy metals; etc.) from the soil or pore water in 5000 acre buffer zone into the groundwater on the UCWSR as mechanical extraction means are utilized to extract unexploded munitions from the Central Impact Area plume source area and ammunition from the multipurpose machine gun range (MPMGR) which is not caught by the berms behind the targets. I was recently informed by the Falmouth representative to the Community Advisory Council for the Environmental Management Commission (that oversees 19 Environmental Performance Standards to support Chapter 47 legislation) that the ANG MEPA/NEPA Environmental Assessment of the MPMGR was exempted from an EPA evaluation of toxic chemicals moving into the ground water from the firing range itself (180 acres) and associated 5000 acre buffer zone. At the June 3 EMC Scientific Advisory Council meeting, they voted unanimously to support the ANG EA FONSi (i.e. the machine gun range would cause no significant environmental impacts on the UCWSR or state-listed species in the Pitch Pine/Scrub Oak forest). The public comment period occurred after this vote which ticked off a lot of the folks who waited until after 9 PM to make comments. I submitted my comment on how the trees and mycorrhiza in the buffer zone could be disturbed by munitions/ammunition removal process which could alter soli biogeochemical cycling and carbon storage (citing NASA Earth Resources Laboratory studies by Bill Cibula on long leaf pine forests in Mississippi). On June 17 the Community Advisory Commission (CAC) will discuss this issue which is why I am submitting written comments (the CAC meeting starts at 5:30 PM). It is possible that some of the ENGOs opposing the ANG EA MPMGR will offer verbal or written comments at the NEJAC meeting on EPA's Superfund Program & Environmental Justice report interactions. The Sierra Club- Cape Cod Group concerns focus on toxic chemicals moving from the soil or pore water into the groundwater on the Upper Cape Water Supply Reserve. Most of the ENGOs on Cape Cod were not engaged in the development of the ANG EA on the MPMGR at Camp Edwards. Following an announcement in the Cape Cod Times in August 6, 2020, they had a month to submit over 900 comments opposing this endeavor. I submitted two public comment emails myself. All of these comments were rejected by the National Guard Bureau in their responsiveness summary. Since funding was provided in 2020 (?) under the National Defense Authorization Act, the ANG is poised to move ahead if the EMC grants approval of the EA at their July 12, 2021 meeting. Thus It is time critical for EPA Region 1 to examine the toxic chemical input to the groundwater challenges on the UCWSR which is a future water source for communities utilizing the Sagamore Lens for drinking water and towns like Falmouth that receive replacement water supplies for a closed public drinking water well. Mashpee has two Public Drinking Water Wells contaminated by PFAS chemicals from the AVP. Thanks for

consideration of these comments. Dr. David D. Dow, East Falmouth, Ma.

I would like to make a comment on threats to the Upper Cape Water Supply Reserve from the Army National Guard's Proposed Multipurpose Machine Gun Range which threatens toxic contamination of our groundwater in the 5000 acre reserve area where munitions and ammunition is extracted by mechanical means. The toxic contaminants of concern include: RDX; perchlorate and PFAS. In the mid-1980's the Falmouth Ashumet Valley Public drinking water well was closed by toxic contaminants from the Ashumet Valley Plume. This led to Falmouth replaced this drinking water with a well on the Upper Cape Water Supply Reserve. In 2002 under Chapter 47 legislation, the state established the Environmental Management Commission to oversee military training that was compatible with protection of the groundwater on the upper 15,000 acres and conservation of 40 state listed species.

This led to a SDWA/CERCLA cleanup at Joint Base Cape Cod which is ongoing. Recently the Air Force Center for Civil Engineering discovered PFOS and PFOA at levels exceeding EPA's hazard level of 70 parts per trillion in public and private drinking water wells in Falmouth and Mashpee (having been contaminated by the Ashumet Valley Plume), In 2020 Ma. DEP issued a maximum contaminant level of 20 ppt for the sum of 6 PFAS chemicals which is the new monitoring target for the CS-23. Plume. Dr. David Dow East Falmouth, Ma.

Full Name (First and Last): John Mueller

Name of Organization or Community: Private taxpaying citizen

City and State: Tulsa, OK

Type of Comment: Written Comment Only Brief description about the concern: I am sending by email a copy of my prepared statement, which I also presented at the March 30 WHEJAC meeting on Zoom, along with other, more recent materials. It is about artificial water fluoridation being a little known but most egregious environmental injustice.

What do you want the NEJAC to advise EPA to do? : My two requests as stated in the narrative of my prepared statement, submitted again for this particular EJAC meeting, hold true and sincere. Please review all attachments and links I am providing in the emailed materials.

Dear NEJAC Leadership:

Thank you for the opportunity to comment on relevant matters. The attached files contain materials as described below: WHEJAC Additional Materials.pdf: My prepared statement which I presented at the inaugural WHEJAC meeting on March 30 this year.

"Dear WHEJAC Leadership, First, thank you very much for selecting me and my comments at today's meeting. I feel quite honored by the opportunity to provide meaningful exposure to the subject matter of my comments. Also, please know, if you do not know already, that in the past few weeks I have sent letters to EPA Administrator Regan and HHS Secretary Becerra. The content of each of those letters included the environmental justice issue and fluoridation. Please see the linked emails that I sent to those new leadership offices based on available email addresses. I also sent the signed originals to their respective recipients via USPS. Question: Will a recording of today's meeting be available to the public with a link provided for access?"

I concluded my presentation at the Zoom meeting seconds after the time limit, and just before the second half of the last paragraph. LULAC Civil Rightspdf: The LULAC resolution referenced in the prepared statement as presented. The WHEJAC March 2021 . . . attached Outlook document is supplemental material relevant to fluoridation as an EJ issue. The WHEJAC March 2021pdf file is the Outlook email document converted to pdf and is being provided in case the Outlook file is not directly accessible on your office computer systems. Graphic1.pdf: I created this graphic to generalize the relationships among the various

departments as the Environmental Justice initiatives play out. I created it based on my surfing of relevant federal government websites. I would very much appreciate it if you would please advise me as to its accuracy. Thank you. Sincerely, John Mueller, Tulsa, OK 74135

Full Name (First and Last): Sandra Faiman-Silva, PH.D.

Name of Organization or Community: Coalition for Social Justice

City and State: Falmouth MA

Type of Comment: Written Comment Only

Brief description about the concern: I have lived in Falmouth MA since 1984. My well in West Falmouth had to be capped when plumes of contamination from Joint Base Cape Cod (then MMR) contaminated our Upper Cape sole source aquifer providing fresh drinking water to six Upper Cape towns, and already costing \$1.4mm+ in clean-up costs. Today JBCC proposes an 8 lane machine gun range, located directly on our sole source aquifer and violating many of the provisions of the Acts of 2002 Chapter 47, the 2001 MOU between the Commonwealth of MA and the MAARNG, and Environmental Performance Standards detailed in April 2017, and a September 1998, Massachusetts Military Reservation Master Plan. Chapter 47 of the MA Acts of 2002 based on Guiding principles of a 2001 MOA said: •Cumulative environmental impacts and economic impacts will be considered; • The Plan will protect existing and future drinking water supply areas • The Plan will protect surface water resources; •The Plan will take into account what has been learned about contamination of the MMR through the Installation Restoration Program; •The Plan will propose uses that minimize adverse impacts on rare species habitat and enhance management of these and other important habitats; •The Plan will minimize fragmentation of forest habitat and other natural areas. And GENERAL PERFORMANCE STANDARDS of 2017 were detailed: None of the following banned military training activities shall be allowed in the Camp Edwards Training Areas: Artillery, Mortar, Demolition live fire or live fire training, Non-approved digging, deforestation or vegetation clearing. The machine gun range plan will clear cut at least 170 acres of pine barrens forests, a rare forest ecosystem; disturb and possibly exterminate 39 rare and endangered species, potentially pollute the Upper Cape Water Supply Reserve, a protected area, with copper bullets and other activities; produce noise and air pollution near an elementary school in Forestdale, MA, and otherwise undermine a Cape Cod environment that relies predominantly on retirement residences, tourism, and coastal activities, including fishing, marine activities, and other tourist-related industries. This proposal was moved through various committees over several years through under-handed notices and meetings of which the public was unaware. A Science Advisory Council just decided to endorse the plan, before their meeting took public comment by 200+ people on the call, denying concerned citizens opportunities to challenge findings and opinions. Committees met without quorums. The MAARNG Bureau conducted its own research, rather than bring in outside 3rd party neutral scientists; has proposed land-swaps inappropriate to protecting endangered species; and continually minimized potential detrimental consequences to our environment and drinking water. Also, 2017 Environmental Performances Standards were declared out of date and lacking in important evaluation criteria (such as carbon sequestration), upon which the decision to endorse this project were made.

What do you want the NEJAC to advise EPA to do? I ask the NEJAC to urge the EPA to stop this ill-advised proposal that violates earlier commitments made to Upper Cape residents over many years. This proposal is incompatible with the prior uses of the upper Cape since the late 19th C., cleanup of prior toxic pollution continues and this proposal will only exacerbate potential pollution of our sole source aquifer providing fresh drinking water to at nearly 1/2 of Cape Cod.

Statement to National Environmental Justice Advisory Council (NEJAC) Public Comment Submission, EPA: re: Joint Base Cape Cod Machine gun range proposal

I have lived in Falmouth since 1984 and my well in W Falmouth had to be capped because of plumes of contamination moving toward W Falmouth harbor as a result of toxic pollution at JBCC (then called Massachusetts Military Reservation). This gave rise to a \$1.4mm+ clean-up effort of a superfund site with 42 sites of contamination that contaminated our sole source aquifer providing drinking water to 6+ towns on Upper Cape Cod. I was active in giving rise to the Chapter 47 of the MA Acts of 2002 as a citizens committee member. Guiding principles of a 2001 MOA included: •Cumulative environmental impacts will be considered in making decisions about future uses. •Economic impacts will be considered in evaluating proposed uses. •The Plan will protect existing and future drinking water supply areas by protecting their Zones of Contribution. •The Plan will protect surface water resources by providing buffers around these areas and protecting them from adverse hydrologic impacts. •The Plan will take into account what has been learned about contamination of the MMR through the Installation Restoration Program and will not hinder ongoing clean up, containment and/or monitoring of contaminated areas. •The Plan will propose uses that minimize adverse impacts on rare species habitat and enhance management of these and other important habitats. (This Does not mean move them or their habitats, a JBCC proposal) •The Plan will minimize fragmentation of forest habitat and other natural areas. •Impacts on residential areas by proposed uses will be minimized. •Proposed uses will respect and/or reflect the history and traditions of Cape Cod. •Proposed uses will minimize impacts to areas of archaeological significance

GENERAL PERFORMANCE STANDARDS of 2017 detailed that: None of the following banned military training activities shall be allowed in the Camp Edwards Training Areas: Artillery live fire, Mortar live fire, Demolition live fire training, Artillery bag burning, Non-approved digging, deforestation or vegetation clearing Today JBCC proposes an 8 lane machine gun range, located directly on our sole source aquifer and violating many of the provisions of the Acts of 2002 Chapter 47, the 2001 MOU between the Commonwealth of MA and the MAARNG and , Environmental Performance Standards detailed in April 2017, and a September 1998, Massachusetts Military Reservation Master Plan. The machine gun range plan will clear cut at least 170 acres of pine barrens forests, a rare forest ecosystem; disturb and possibly exterminate 39 rare and endangered species, potentially pollute the Upper Cape Water Supply Reserver, a protected area, with copper bullets and other activities; produce noise and air pollution near an elementary school in Forestdale, MA, and otherwise undermine a Cape Cod environment that relies predominantly on retirement residences, tourism, and coastal activities, including fishing, marine activities, and other tourist-related industries. This proposal was moved through various committees over several years through under-handed notices, meetings that the public was not made aware of sufficiently, and various maneuvers to deceive the public that this proposal even existed. Most recently the Science Advisory Council decided before the meeting was open to public comment by 200+ people on the call, denying concerned citizens opportunities to challenge findings and opinions. Citizens committees did not maintain quorums or alert interested citizens who should have been included in evaluation and decision-making. The MAARNG Bureau conducted its own research, rather than bring in outside 3rd party neutral scientists; proposed land-swaps that are inappropriate and threaten endangered species; and continually minimized the potential detrimental consequences to our environment and drinking water. Also, 2017 Environmental Performances Standards used in the assessment and decision-making were declared out of date and lacking in important evaluation criteria (such as carbon sequestration), upon which the decision to endorse this project were made. I ask the NEJAC to urge EPA to stop this ill-advised

proposal that violates earlier commitments made to Upper Cape residents over many years. This proposal is incompatible with the prior uses of the upper Cape since the late 19th C., cleanup of prior toxic pollution continues and this proposal will only exacerbate potential pollution of our sole source aquifer providing fresh drinking water to at nearly 1/2 of Cape Cod. Sandra Faiman-Silva, Ph.D. Professor Emerita, Anthropology, Bridgewater State U Convener, Cape & Islands Common Start Chapter Coalition for Social Justice Board & Steering Committee. 50 Davis Road, Falmouth, MA 02540

Good Afternoon, As part of the National Environmental Justice Advisory Council (NEJAC) Virtual Public Meeting scheduled for this Thursday, June 17th, and in your dual role as the Designated Federal Officer for NEJAC and the White House EJ Advisory Council (WHEJAC), our conservation groups respectfully submit the attached materials into NEJAC's public record for consideration of the Yazoo Backwater Area Pumping Project (Yazoo Pumps). Please accept these materials on behalf of our groups as well as our conservation partners American Rivers and Healthy Gulf, and collectively our tens of thousands of members in Mississippi and across the country; your acknowledgement of receipt is kindly requested. Our organizations reiterate our enduring support of EPA's Clean Water Act 404(c) authority to issue a veto in 2008 that stopped the destructive, ineffective Yazoo Pumps project and protected tens of thousands of acres of nationally significant wetlands. We have called on EPA to immediately restore the 2008 veto protection that was revoked by the Trump Administration, reconfirm that the veto applies to the Corps' current plan, and as a critical matter of environmental justice, work with the Council on Environmental Quality (CEQ) to develop an interagency task force to implement prompt, effective flood relief to underserved communities in the Yazoo Backwater Area through existing federal programs. Specifically, this task force could help redress a series of long-standing environmental injustices by drawing on the alternative strategy our organizations have developed, which identifies prompt, affordable, and effective flood risk management solutions that are available to provide lasting, meaningful relief to underserved backwater communities (see attached Yazoo Backwater Area - A Resilience Alternative). Importantly, structural damage assessments completed by the Mississippi Emergency Management Agency of the six Yazoo Backwater counties impacted by the 2019 flood showed that damages were highly concentrated, which underscores how these federal programs can be deployed in a highly targeted way to deliver effective flood relief for these underserved communities (see attached Yazoo Backwater 2019 Flood Damages Map). EPA's Final Determination was based on an extensive record that remains as valid today as it was when it was issued in 2008 (see attached Fact Sheet, "Immediate Action is Required to Stop the Yazoo Pumps"). New data from the U.S. Army Corps of Engineers (Corps) shows that under the best-case scenario, 83 percent of the Yazoo Backwater Area that flooded in 2019 (a 25-year event) would still have been underwater if the Yazoo Pumps had been in operation, and it would have taken more than 2 months for the Pumps to drain the water from the remaining acres (see attached 2019 Flood Inundation Map). This reinforces the Corps' 2007 findings that the Pumps are not designed to protect communities from flooding; hence 80% of the project benefits would be for agriculture by draining tens of thousands of acres of wetlands to intensify farming. Additionally, because the Yazoo Pumps would discharge water directly into the Yazoo River, vulnerable downstream communities in Vicksburg, MS, would also be at heightened risk during floods as the already swollen Yazoo River would receive an additional 9 billion gallons of water a day from the project. This massive influx of extra water also could breach the levee that protects the Yazoo Backwater Area from high water in the Yazoo River, exposing the very same backwater communities that the Pumps are purported to protect to the full force of a Yazoo River flood. This levee is so low that it is

not accredited to handle a 100-year flood, as acknowledged by the Federal Emergency Management Agency and the Corps. These serious safety risks cannot be, and are not, offset by the alleged flood protection benefits of the Yazoo Pumps. During the public comment period on the Corps' renewed 2020 proposal for the Yazoo Pumps, 50,000 citizens, scientists, and public interest groups urged the Corps to abandon this ineffective, destructive project, and instead prioritize immediate, sustainable flood solutions to benefit local communities (for examples, see attached two letters). Ninety-four percent of the comments received by the Corps were against the Pumps and called for commonsense natural infrastructure and non-structural approaches available now to help protect people's lives, property and livelihoods, such as elevating homes and roads, and paying farmers to restore cropland back to wetlands. In closing, our organizations reiterate our urgent request that EPA work in partnership with CEQ to assemble an interagency task force to advance this alternative suite of solutions that can provide prompt, meaningful relief and lasting benefits for Yazoo backwater communities. Finally, we have attached electronic copies of the Yazoo Pumps materials that we ask be included in the public record; please find a guide to those materials below. Thank you for your consideration. Please do not hesitate to reach out to us with questions or if more details are needed. Sincerely, Jill Mastrototaro, Mississippi Policy Director, Audubon Delta Louie Miller State Director, Mississippi Sierra Club.

Full Name (First and Last): Laura Diaz

Name of Organization or Community: The Educator Collective for Environmental Justice

City and State: San Leandro, CA

Type of Comment: Written Comment Only

Brief description about the concern: The San Francisco Bay Area is bombarded with various environmental justice issues. Along the estuary corridor- Oakland, Richmond, Pittsburg, and Antioch are over polluted by the fossil fuel industry (Chevron in Richmond) and Antioch and Pittsburg are polluted by the Dow Chemical Plant (among other polluters). The bay area is most notorious for income disparities, and places that are hubs for the super rich, such as the Silicon Valley and Marin County, are under polluted and overfunded

What do you want the NEJAC to advise EPA to do? : I want NEJAC to have a serious presence in the bay area and bring light the issues of EJ in the bay. Recently Oakland and Richmond are just beginning to get some EJ-focused resources. Pittsburg and Antioch are in desperate need for the same shift.

Because places like Pittsburg are "zones of abandonment", the Dow plant is marketed as a job opportunity. I'd like to see the EPA facilitate a reinvestment campaign so that place like Pittsburg are not manipulated to this violent polluting because there is no investment with prolific job opportunities.

Full Name (First and Last): Lakendra Barajas

Name of Organization or Community: Earthjustice

City and State: New York, NY

Brief description about the concern: In 2016, Congress amended a largely ineffective Toxic Substances Control Act ("TSCA") and established a new mandatory process to systematically evaluate and manage chemical risks. The amended law requires EPA to evaluate chemicals' risks to "potentially exposed or susceptible subpopulations," groups that face greater risks than the general public, and then to issue regulations that eliminate any unreasonable risks. We believe that if the new statute were implemented correctly, it would provide important benefits for communities and populations that are most exposed or most susceptible to toxic chemicals.

However, recent statements made by EPA suggest that EPA may define potentially exposed and susceptible populations too narrowly, a decision which would violate the letter and spirit of the law. For this reason, we ask the NEJAC 1) to urge OCSPP to consider a broad range of communities as potentially exposed and susceptible subpopulations and 2) to consult with the NEJAC and other environmental justice groups when determining how to evaluate risks to those communities.

What do you want the NEJAC to advise EPA to do? : We ask that NEJAC:

1) Advise EPA's Office of Chemical Safety and Pollution Prevention to take a broad approach to how the Agency defines "potentially exposed and susceptible" under TSCA, reevaluate its definition of "fenceline communities" in consultation with the NEJAC and other environmental justice groups, and conduct separate analyses to determine if evaluated chemicals pose an unreasonable risk to communities. 2) We strongly urge NEJAC to form an internal TSCA working group to ensure constant communication with EPA and provide opportunities for strategic implementation of environmental justice throughout all stages of the risk evaluation process.

My name is Stephanie Herron. I am the National Organizer for the Environmental Justice Health Alliance for Chemical Policy Reform.

EJHA is a national network of EJ organizations who have been working to prevent and deal with chemical disasters in their communities for many years, some of them since even before I was born. Yesterday I joined many others at the first of two EPA Listening Sessions regarding their Risk Management Program to tell EPA that if they want to prioritize Environmental Justice, then they MUST prioritize protecting workers and fenceline communities by issuing a truly protective Chemical Disaster Prevention Rule on the fastest timeline possible. I'm here today to ask the NEJAC to join in that call by writing a letter to Administrator Regan and the EPA Office of Land and Emergency Planning calling on them to issue a strong RMP rule to protect fenceline communities on the fastest timeline possible. It's 2021 and we know that People of Color aren't clustered together in certain areas by accident—and neither are polluting facilities. The legacy of segregation and systemic racism run deep in this country. The Life at the Fenceline report, published in 2018, showed that residents in the areas closest to RMP facilities are disproportionately Black and Latino. These communities also tend to be located in areas that are at increased climate risk, as we saw in Hurricane Harvey, Laura and others. We need a rule that addresses this by requiring facilities to assess, and take ACTION to address, the increased risk of disasters caused by extreme weather, which is only getting worse due to climate change.

Some other examples of what a strong rule would include are:

- Addressing the cumulative hazard to communities located near multiple facilities;
- Taking a hazard reduction approach;
- Requiring facilities to assess safer alternatives and go with the less dangerous chemical or process wherever possible;
- Requiring commonsense emergency response measures like back-up power and reliable community notification when incidents do happen;
- Expansion of the Program to include more dangerous facilities and chemicals—like the one that exploded in Rockton, IL a few days ago and the BioLab facility in Lake Charles, LA

which burned for three days and exposed to the community to dangerous chemicals & smoke in the wake of Hurricane Laura;

- Requiring fence-line monitoring, which could help warn facilities in advance of a major disaster AND help communities know what they're being exposed to when one does happen. Knowing what is in the air IN REAL TIME is the only way community members can take action to protect their families.

Basically, we need EPA to issue a RMP Rule that acknowledges the ACTUAL risk EJ communities face, which has never happened before in 30 years of this program. Our communities do not have luxury to not live next to these facilities or to be exposed to them one at a time; we do not have the luxury to not live in a changing climate. We live in the real world and that world is putting our people in danger every day. EJHA and our partners are prepared to use our full advocacy capacity to support EPA in any way necessary to make this happen. We are counting on EPA to do what the reality and the moment demand. Anything less will be unacceptable. Again, we are asking the NEJAC to partner with us in this effort by issuing a recommendation letter to EPA. Like our affiliates, NEJAC has a long history of working towards a strong Chemical Disaster Rule that protects workers and communities. I am submitting with this written comment copies of the NEJAC letters on Chemical Disaster Prevention in the RMP from 2016 and 2019, as well as a copy of the Life at Fence-line report which I referenced above. A forthcoming new report on the risk of double threat of “natural” disasters triggering chemical disasters is expected in July, at which time I will also be submitting that to the NEJAC for consideration—though I would ask that the Council begin work on the letter to EPA in advance of that release if possible.

Moms Clean Air Force Colorado Chapter acknowledges the stolen lands of over 574 tribal nations, and that we sit directly on the lands of the Cheyenne, Arapahoe, and Ute Nations, and 45 other tribes that once occupied Colorado.

My name is Shaina Oliver and I am a Field Organizer for Moms Clean Air Force and EcoMadres Chapter in Colorado representing our more than 38,000 members in the state. Including being an advocate for Indigenous Peoples' Rights. But most importantly, I am a mother of four children. My children and I are tribal affiliates of the Navajo Nation, descendants of the genocide known as “The Indian Removal Act” known to the Dineh people as “The Long Walk of The Navajo”. I was born at Shiprock, NM on the Navajo Reservation, currently living in Denver, Colorado with my children and husband.

Tribal Communities have been a prime target for government exploitation and abuse inflicted on indigenous people and communities throughout history. Treaties and bad deals forced on Indigenous people have been a detriment to our health, environment, and economic wealth. Our Indigenous tribal members still rely on centuries old economic resilience through food sovereignty, native plant medicines, ranching, and adaptation.

Historically, policy violations have ravaged Indigenous community's health, wealth, and environmental wellbeing. As a tribal affiliate of the Navajo Nation, I have seen the devastating land and health impacts contributed by coal, uranium, oil, and gas extraction. Because of these disparities, Indigenous people now have the highest rates in asthma, diabetes, heart disease, cancer, leukemia, adverse birth outcomes, and premature deaths than the general population. I myself was born prematurely, low-birth weight, diagnosed with asthma as an infant, and later in life diagnosed with a birth defect. My uncle who lives near an oil and gas site has suffered a

heart attack and has undergone heart surgery. In addition, my grandfather suffered from asthma continuously before passing away from leukemia. According to Physicians for Social Responsibility the burdens of health impacts from oil and gas pollution exposures can continue to affect three generations in the future.

Because of systemic environmental violence and racism built into our treaties, laws, policies, and regulations; Black, Brown, Indigenous, and low-income people have been segregated and redlined into communities near polluting industries. We are seeing this reality play out once again industries like mining, drilling, waste sites, and industrial industries are disproportionately impacting Tribal, Black, Latino, low-income, and rural communities with either violations or exemptions from the Clean Air Act and Clean Water Act.

Scientists have known for decades that air pollution is harmful to health and this is especially true for vulnerable populations such as older adults, people with underlying health conditions, communities of color, pregnant women, and children.

The National Environmental Justice Advisory Council must address the lack of engagement with tribal communities and members on environmental concerns. Tribal communities and members must be a part of the planning of addressing environmental justice and public health.

Thank you for providing this opportunity to share public comments.

Shaina Oliver, Dineh/Navajo
Indigenous Peoples' Rights Advocate
Field Organizer, EcoMadres/Moms Clean Air Force CO

A concern I have as resident of Falmouth, Ma. is the disposal of excess sludge from our town wastewater treatment plant which contains PFAS chemicals. This material is sent to a landfill near Providence, RI, since the Bourne Integrated Solid Waste Management Facility won't accept this municipal solid waste (MSW). Other Cape Cod towns with activated sludge wwtps send their excess sludge to an off-Cape Waste-To-Energy Incinerator which won't destroy all of the 9000 PFAS chemicals (some of this are found in wastewater effluent and others in the wastewater solids/sludge).

Some industrial/wastewater sludges are used as soil amendments for agricultural fields where the PFAS show up in crops consumed by humans and wildlife. The water and sediments of Ashumet pond and Waquoit Bay are contaminated with PFAS chemicals which can bioaccumulate in finfish and shellfish (along with methyl mercury and cyanobacteria/red tide toxins) which pose health threats to sensitive populations (women of childbearing age and kids; recreational fishermen/women and Wampanoag

Tribal members who hunt and fish in their traditional regions on Cape Cod under treaties). When I lived in Slidell, La., the Sierra Club and local black community opposed a Waste-to-Energy Incinerator for trash and garbage because of poor air pollution removal of toxic chemicals in the smokestacks and having trash trucks driving through the black neighborhood throughout the day.. Members of the Parish Government withdrew this approval after we held a public meeting on the challenges posed by this endeavor on local residents. Thus plastics are not

the only hazardous wastes in msw generated at the local level which can't be recycled or disposed of in an environmentally safe fashion.

Dr. David Dow, East Falmouth, Ma.

Full Name (First and Last): Brandi Crawford-Johnson

Name of Organization or Community: EJ Advocate

City and State: Dowagiac, Michigan

Brief description about the concern: Kalamazoo Air Crisis.

What do you want the NEJAC to advise EPA to do? : My name is Brandi Crawford-Johnson and I have been gathering experts and working with agencies to address the air poisoning in Kalamazoo. ATSDR has agreed to talk to the doctors at our local family health center. The doctors need to know how to best treat the health and stress of frontline residents, resulting from the environmental contamination. I would like NEJAC to advise the EPA to announce public health emergencies with their public health partners in every frontline community in the United States. Frontline communities like mine in Kalamazoo, Michigan do not deserve to be ignored any longer! They are dying prematurely because corporation profits are being put before the health of residents. I would like NEJAC to advise the EPA to audit Graphic Packaging's TRI. There are many errors and underreporting. The EPA must put protecting frontline communities from harmful pollution at the top of their list of priorities. We must step up enforcement on all toxic release facilities to protect humans and the environment. Thank you.

Full Name (First and Last): Heather Croshaw

Name of Organization or Community: St. Croix Environmental Association

City and State: Christiansted, St. Croix, USVI (organization's situs)

Brief description about the concern: This comment is submitted on behalf of the St. Croix Environmental Association - a grassroots, environmental organization located on St. Croix, U.S. Virgin Islands. Recently, the community of St. Croix experienced an acute environmental and public health emergency caused by the Limetree Bay Oil Refinery. It rained oil on the island twice - once in February and the second time in mid-May. In its application for a Clean Air Act permit, the EPA designated the fenceline community surrounding the Limetree Bay refinery as a designated environmental justice community. However, before the refinery restarted operations in early February, no monitoring was established by EPA or the territorial environmental agency (DPNR). It was a grave oversight and cannot happen again, especially in a designated EJ community that has suffered environmental injustices from this refinery in the past under previous ownerships. After Limetree Bay restarted refining oil, within weeks, the facility was polluting St. Croix. Air pollution emissions began sickening the community - people complained of headaches, skin rashes, irritated eyes and throats, nausea, passing out, and migraines. The smell was so strong it woke up people downwind in the middle of the night, with children blacking out. Then on May 12th, a coker at Limetree Bay Refinery caught fire and it rained oil again on our community. The fiery plume spread oil and noxious fumes across the western half of St. Croix. There was no government monitoring in place to capture any data to establish how bad this pollution incident was. By May 15th, EPA ordered Limetree Bay Refinery to shut down pursuant to an emergency CAA Section 303 order. While it was a temporary shutdown, only for 60 days, the deadline day for a possible reopening was July 15, 2021. We set in motion to get ready for Limetree's reopening, which included getting the government's monitoring up and running, as well as establishing a community-based monitoring program. We applaud EPA Region 2's announcement of requiring air quality monitoring at Limetree Bay. It is requiring Limetree Bay to develop and submit a plan to install, operate and maintain nine hydrogen sulfide

(H2S) monitors and nine sulfur dioxide (SO2) monitors on St. Croix, within 15 days. Five of the SO2 monitors are already required by a preexisting permit, and the other four SO2 monitors and all nine of the H2S monitors are being newly required. This is a good start for holding Limetree accountable for spewing toxic air pollution in our community.

What do you want the NEJAC to advise EPA to do? : One consideration SEA would like NEJAC to recommend to EPA is that Environmental Justice needs to be Federal law. While the Biden Administration is to be commended for making EJ front and center, we cannot rely on Executive Orders and a change in administration to implement EJ initiatives and protect disproportionately impacted communities. We strongly encourage the push to make EOs Federal law. Additionally, we ask NEJAC to consider enabling environmental justice to be a substantive right, and not only a procedural one. Currently EPA's obligation is to identify and address disproportionate impacts on a community. But this procedural aspect needs teeth so identified EJ communities and their governments can take action to protect their public health and environment under the law. Also, EPA needs to be more proactive when they identify an EJ community. They need to ensure that air quality monitoring is in place, for example, when refineries restart. There must be other programs in place so communities in the vicinity of a fossil-fuel based facility can look to other initiatives for economic development and a just transition, such as supporting green business, enhancing public universities (particularly HBCUs), and to have environmental education in schools. In St. Croix, specifically, the community is already facing a "Race-to-the Bottom" situation because companies believe they can operate with impunity.

This model does not work in places like St. Croix because the regulatory situation is not strong, which in turn makes them easy targets for dirty industries looking to make a quick dollar and pollute at-will without consequences. While Limetree Bay Refinery announced on June 21, 2021, that it was suspending refining operations indefinitely due to financial constraints, SEA still advocates for a robust, multi-prong air quality monitoring for St. Croix. We need both high-level and community-level monitoring programs to foster trust and relationships with community groups, government, private sector, and universities. For the high level approach, before any facility with the potential to significantly pollute and harm fence line communities, there needs to be high level air and water and soil monitoring in place. Fence line communities cannot rely on businesses, especially those in the oil and chemical industries, to self regulate. For St. Croix specifically, our territorial environmental agency DPNR needs help with Capacity building to recruit and train personnel on monitoring equipment and data analysis, as well as obtaining funds from EPA to establish a high-level air emissions monitoring system that would include federal reference methods. Further, we ask for a community-based monitoring program to be established. This program would be empowerment science at its core, which would be done by the community, and have engagement with community members. Thank you for your time and consideration.

Full Name (First and Last): Yvette Arellano

Name of Organization or Community: Fenceline Watch

City and State: Houston

Brief description about the concern: Emailed comments to nejac@epa.gov on TSCA (chemical review, exemptions, mixture assessment factor) Risk Management Plan (EPA Climate studies, community right to know, fenceline monitoring, fines & toxic alert system)

What do you want the NEJAC to advise EPA to do? :

Extensive comments included in email. Where regulations are based on lists of hazardous chemicals, agencies should regularly review the lists and add new chemicals as appropriate through a (more details in attachment). NEJAC should also recommend EPA assess how to best introduce mixture assessment

factor(s) (MAF) in the TSCA/USEPA regulation in 2022. With this recommendation, we also request NEJAC push for a cumulative impact statement (CIS) and incorporate this as part of the CIS.

NEJAC should direct EPA to enter into an agreement with the National Academy of Sciences, the National Institutes of Health, and the National Oceanic and Atmospheric Administration to conduct a study and report on the environmental, public health, and environmental justice impacts of the plastic industry and its planned expansion. NEJAC must recommend EPA require guidance on fence-line monitoring. translation into dominant language should be a priority for RMP plans. We want NEJAC to recommend that EPA establish a fee for chemical disaster (further details in email attachment), Toxic alert system. We request that NEJAC recommend EPA to place the pressure on Texas Commission on Environmental Quality (TCEQ) to make a State Implementation Plan (SIP) revision or have EPA pull the Texas SIP RACT/ RACM.

Full Name (First and Last): Sydney Evans

Name of Organization or Community: Environmental Working Group

City and State: Washington DC

Brief description about the concern: There is a vast gap between what is legally allowed in drinking water and what is protective of sensitive populations like pregnant women and children. This tends to impact rural areas, lower income localities, and communities of color more heavily, creating inequity between communities in drinking water quality.

What do you want the NEJAC to advise EPA to do? : Continue to support initiatives that prioritize distributing resources to communities with the most need, in order to increase equity in drinking water quality across the United States. Recommend improvements in the communication of drinking water contaminant risks that exist below legal limits, as is demonstrated in the EWG Tap Water Database.

Moms Clean Air Force is 1.5 million moms, dad, grandparents and more who are working for clean air and a healthy climate for the sake of our kids. We are proud to support the work of the National Environmental Justice Advisory Committee, and we stand ready to stand behind your work. Thank you for taking the time to review the urgent environmental justice priorities that we have identified through our work across the country.

Vehicle Pollution

Vehicle pollution creates unequal health burdens across America. Schools serving predominantly Black students are located closer to heavily trafficked roads compared to other schools. In one study, schools serving predominantly black students were 18% more likely to be located within 250 meters of a major roadway compared to other schools. Traffic pollution contains small particles, linked to a range of health problems including cancer. We are heartened by the EPA's movement toward reinstating the long-standing authority for states, like California, to set their own greenhouse gas emissions standards for cars and light trucks. Restoring state clean air authority is just the beginning. It's critical that the EPA get to work immediately on more ambitious tailpipe emission standards nationwide. The health impact of Trump's rollback

of federal clean car standards has been studied, and predictions are grim. The rollback would, by mid-century, cause 18,500 premature deaths and more than 250,000 more asthma attacks, as a result of the extra air pollution. Stronger federal standards for tailpipe pollution will very literally, save lives in the communities we love.

Pollution from oil and gas extraction

One in three people in the US lives in a county with oil and gas production, and over 17 million live within a mile of active oil and gas wells, putting their health at risk. But the risk is not evenly distributed. Black, Indigenous, and people of color (BIPOC) communities are disproportionately exposed to dirty air, including harmful pollution from oil and gas operations, because of where they live, learn, work, and play. Where there are oil and gas operations, you can find methane and volatile organic compounds being leaked, vented, or flared throughout the supply chain. This pollution contributes to climate change and also ground level ozone or smog that can cause asthma attacks. Latinos experience 153,000 asthma attacks and 112,000 missed school days each year due to oil and gas air pollution. Rates of asthma are often higher in Latino communities. More than one million African Americans live within half a mile of oil and gas operations. Cutting methane pollution will have the benefit of better air quality.

We are thankful that the Methane Congressional Review Act has now been signed into law, reinstating standards that limit methane pollution. However, we must further strengthen standards that limit methane pollution from newly built and recently modified oil and gas operations. In order to make meaningful progress in fighting climate change and protecting public health, we need national standards that limit harmful methane pollution, not just from new sources, but also from existing oil and gas operations. This will help improve air quality, protect public health, and help address the climate crisis. NEJAC can provide strong leadership to cut methane pollution by 65% by 2025 from 2012 levels to protect our children's health and future. Funding for Tribal Air Quality Programs and Increased Access to Treatment as a State (TAS) Status

Indigenous People & Air Pollution

Indigenous communities are predominantly impacted by pollution beyond their homelands—often by neighboring governments. This is called transboundary pollution. It is therefore crucial that Indigenous communities have the ability to review and comment on permits, rules, and regulations governing the creation of transboundary pollution. Tribes are sovereign nations, and have the right to full, prior and informed consent when new sources of pollution are contemplated in their area. The EPA can provide additional training so that Tribal governments are able to successfully apply for Treatment as a state (TAS) status. TAS status promotes tribal sovereignty and qualifies a Tribe to be treated as an “affected state” when operating permits are issued. This ensures that Tribes receive notice when neighboring states issue permits to facilities that may impact air quality on Tribal lands.

Clean Air Act

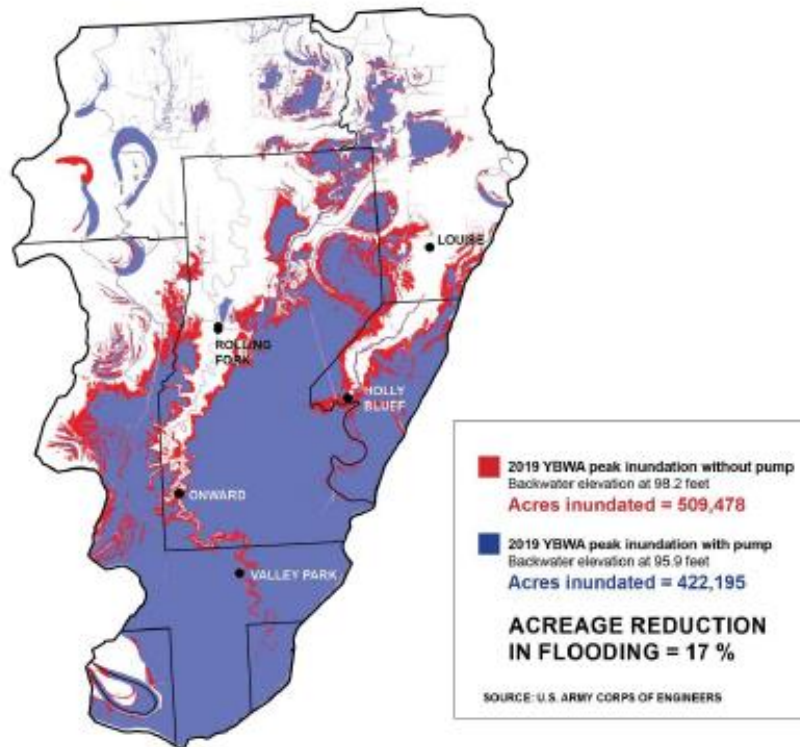
On a national level, we support science-based, health-protective pollution standards from the Environmental Protection Agency (EPA), under the authority of the Clean Air Act. Despite significant improvements in air pollution in the past several decades, there remain stark racial disparities in pollution exposure. For example, 48% of Latinos in the US live in counties that frequently violate ground-level ozone standards, and 68% of Latinos live in areas that do not meet federal air quality standards compared to 58% of whites. Research consistently shows that BIPOC communities bear the brunt of air pollution in the United States. The NAACP found that African American communities breathe in air that is 40% more polluted than in other communities. A national survey found that 61% of African Americans were exposed to dirty air

compared to 43% non-Hispanic white Americans. We need to strengthen the National Ambient Air Quality Standards based on the best available science in order to make progress toward cleaner air for all. In 2015, we joined a groundswell of grassroots support for stronger national protections from ground-level ozone, or smog, resulting in EPA lowering the standard from 75 parts per billion (ppb) to 70 ppb. In 2020, the Trump administration declined to strengthen the ground-level ozone standards, despite robust science indicating that the standards are not adequately protecting our health, and despite an outpouring of grassroots support for more protection. We are currently advocating for the EPA to fix this harmful mistake, which especially harms the health of Black and brown communities. Similarly, strengthening the too-weak particle pollution standards is an essential early step in addressing racial inequities in pollution exposures. Moms Clean Air Force

Field Managers and Field Organizers, Elizabeth Brandt, Patrice Tomcik, Molly Roach, Shaina Oliver

2019 Flood Inundation Map With and Without the Pumps:

Corps' data shows 83% of the Yazoo Backwater Area that flooded in 2019 - a 25-year flood event - would have remained underwater even if the Yazoo Pumps had been in operation, and it would have taken more than 2 months for the Pumps to drain the water from the remaining acres.



YAZOO BACKWATER 2019 FLOOD DAMAGES*

During the prolonged 2019 flood, homes and businesses in the counties that make up the Yazoo Backwater Area sustained \$12.3 million in structural damage. This damage was concentrated in Warren County (including the Eagle Lake community). Warren County sustained 85% of the monetary damage. Flood mitigation, such as elevating structures, purchasing floodplain easements, and elevating flood-prone roads, is rarely practiced in the Yazoo Backwater Area.

WASHINGTON COUNTY

NO DAMAGES REPORTED

HUMPREYS, SHARKEY AND YAZOO COUNTIES

HOMES DAMAGED: 62
BUSINESSES DAMAGED: 3

TOTAL MONETARY DAMAGE:
\$560,000



WARREN COUNTY

HOMES DAMAGED: 358
BUSINESSES DAMAGED: 14

TOTAL MONETARY DAMAGE:
\$10,442,000

% OF ALL FLOOD DAMAGES OCCURRING IN WARREN COUNTY



All structures damaged



All monetary damage



Homes damaged



Homes-monetary damage



Businesses damaged



Businesses-monetary damage

ISSAQUENA COUNTY

HOMES DAMAGED: 52
BUSINESSES DAMAGED: 1

TOTAL MONETARY DAMAGE:
\$1,335,000

*Estimated damages to homes and businesses in counties that fall within the Yazoo Backwater Area, as reported by the Mississippi Emergency Management Agency. It is unclear how much of the damage reported occurred outside the Yazoo Backwater Area (outlined in blue).

During the 2019 flood, structural damages within the six Yazoo Backwater counties were highly concentrated with 76% of all structural damage and 85% of all structural monetary damages occurring in Warren County, which includes the Eagle Lake community and extensive areas located outside of the boundaries of the Yazoo Backwater Area. In 2019, relatively few structures were affected by flooding in Issaquena and Sharkey counties, the two counties located entirely within the Yazoo Backwater Area, according to Mississippi Emergency Management Agency data. Within Issaquena and Sharkey counties a total of 53 homes and 19 mobile homes were affected. Of those, 27 homes had only minor or very minor damage. Data for other counties include large areas that would not be affected by the Pumps.

Multiple factors contributed to the 2019 flooding in the Eagle Lake community, which is an old oxbow of the Mississippi River in northwestern Warren County. It is likely that the Eagle Lake community would have suffered flood damages even if the Yazoo Pumps had been operating in 2019. The [Resilience Alternative](#) that conservation organizations have identified provides effective, immediate solutions to reduce flood damages for the Eagle Lake community.



Yazoo Backwater Area A Resilience Alternative

Strategic use of voluntary wetland reserve easements, restoration, and non-structural measures can reduce flood risks for vulnerable communities in the Yazoo Backwater Area (YBWA) of Mississippi, make those communities and the nation's wildlife more resilient to climate change, and advance the vitally important 30x30 Initiative by permanently protecting 80,000 acres of critical wetlands. These commonsense measures could be implemented through existing federal programs under the direction of an interagency task force convened by the Council on Environmental Quality and led by the U.S. Fish and Wildlife Service, U.S. Department of Agriculture, and Federal Emergency Management Agency.

The hemispherically significant wetlands in the YBWA are "some of the richest wetland and aquatic resources in the nation."¹ They support 450 species of birds, fish and wildlife; are used by 29 million migrating birds each year; and include tens of thousands of acres of federal, state, and privately-owned conservation lands. Critically, these wetlands help protect YBWA communities by storing hundreds of billions of gallons of floodwaters, improving water quality, and sequestering carbon. To prevent unacceptable damage to more than 67,000 acres of these vital wetlands, the Environmental Protection Agency used its Clean Water Act 404(c) authority in 2008 to veto the Yazoo Pumps. This veto paved the way for the subsequent protection of an additional 53,300 acres of YBWA wetlands through conservation easements and other voluntary mechanisms.

But in a reckless about-face and in direct violation of the law, the Trump Administration hastily revoked the 2008 veto and then approved the Yazoo Pumps just days before President Biden was sworn in to office. The Corps refused to consider this Resilience Alternative—or any other alternative to the destructive and ineffective Yazoo Pumps—despite repeated requests to do so. The Corps' decision was opposed by the U.S. Fish and Wildlife Service, 110 scientific professionals, four scientific associations, 120 conservation and social justice organizations, and more than 55,000 members of the public.

The \$450 million Yazoo Pumps will drain tens of thousands of acres of wetlands to subsidize large-scale agribusiness operations that have already received \$1.05 billion in farm subsidies.² The Yazoo Pumps are not designed to protect communities and will not prevent flooding.³ The Pumps will leave 82% to 89% of flooded lands underwater, take weeks to months to drawdown floodwaters on the remaining lands, and increase flood risks for downstream frontline communities.⁴

The Biden Administration can deliver immediate, sustainable flood relief to underserved communities in the YBWA while protecting nationally significant wildlife resources by reconfirming EPA's 2008 veto of the Yazoo Pumps, withdrawing the fatally flawed Record of Decision approving the project, and appointing an interagency task force to implement the Resilience Alternative outlined below.

Targeted Use of Existing Federal Programs in the Yazoo Backwater Area

Flooding in the YBWA is primarily restricted to conservation lands managed as wetland systems, low-lying marginal agricultural lands targeted for restoration by the Lower Mississippi Valley Joint Venture, and other low-lying, sparsely populated areas.⁵ Strategic implementation of existing federal programs can protect communities in the YBWA, while also achieving the area’s critical restoration goals.

The programs outlined below authorize and fund the voluntary wetland reserve easements, restoration, and non-structural measures that are part of this Resilience Alternative. Strategic use of these measures can be achieved through an interagency task force led by the U.S. Fish and Wildlife Service, U.S. Department of Agriculture, and Federal Emergency Management Agency.

Federal Program	Structures	Agricultural Lands	Community Facilities	Roads, Bridges Utility Systems
Wetland Reserve Easements (WRE) USDA		✓		
Floodplain Easement Program USDA	✓	✓		
Building Resilient Infrastructure and Communities (BRIC) FEMA – Pre-Disaster Mitigation	✓		✓*	✓
Flood Mitigation Assistance (FMA) FEMA – Pre-Disaster Mitigation	✓		✓*	✓
Hazard Mitigation Grant Program (HMGP) FEMA – Post-Disaster Recovery	✓		✓	✓
Community Facilities Grant Program USDA – Post-Disaster Recovery	✓		✓	

*With some limitations. Other federal programs, including the HUD Community Development Block Grants-Disaster Recovery Program, are also available to assist with post-disaster recovery subject to targeted appropriations.

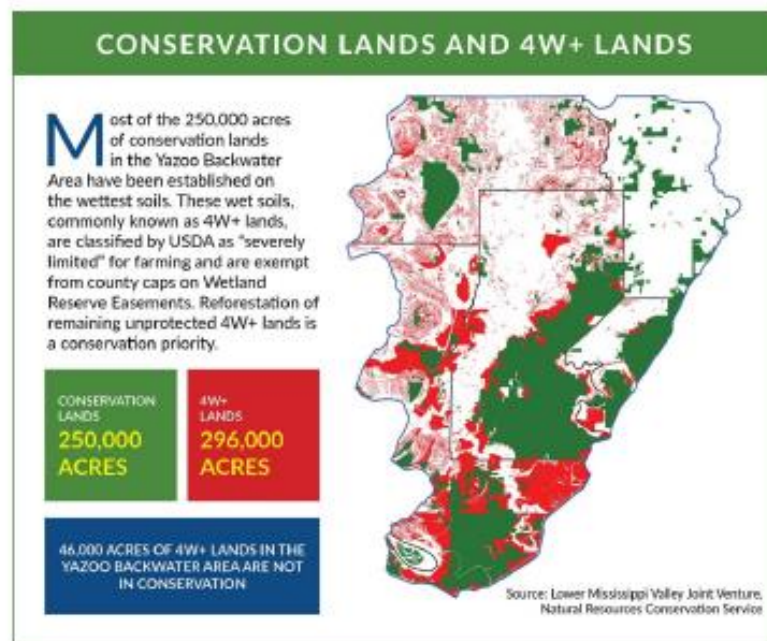
The benefits of these measures could be amplified by an innovative marketing campaign to stimulate wildlife and cultural heritage-associated tourism in the YBWA developed in collaboration with the [Mississippi Delta National Heritage Area](#), the [Delta Blues Trail](#), the [Delta National Forest](#), and the [Theodore Roosevelt National Wildlife Refuge Complex](#). The Delta Interpretive Center, which will be housed in the newly constructed Theodore Roosevelt Wildlife Refuge Visitor Center, could be a centerpiece of this effort.⁶ Funding for such a campaign could be sought through the [Mississippi Delta National Heritage Area Grant Program](#).⁷

Diversifying the economy of the YBWA in this manner would provide a substantial lifeline to the region’s struggling economy. Outdoor recreation in Mississippi [generates \\$8 billion in consumer spending, \\$620 million in state and local tax revenue, and 79,000 jobs](#).⁸ In 2011, state residents and nonresidents spent \$2.63 billion on wildlife recreation in Mississippi.⁹ The demand for wildlife-related recreation is increasing nationwide and directing more of this demand to the YBWA could produce significant economic benefits for the region’s rural, low income communities.

1. Wetland Reserve and Floodplain Easement Programs (USDA)

Goal: Enroll at least 80,000 acres of YBWA lands in the Wetland Reserve Easement (WRE) and Floodplain Easement Programs managed by the U.S. Department of Agriculture. These easements should be targeted towards marginal croplands (those with 4W+ soils) adjacent to existing conservation lands, croplands inundated during the 2019 floods, croplands within the acquisition boundaries established for the National Wildlife Refuges in the YBWA, and croplands targeted for restoration by the Lower Mississippi Valley Joint Venture. Floodplain easements should also target frequently flooded residential properties.

This goal is supported by extensive planning assessments, GIS analyses, and the best available conservation science which have been used to identify 80,000 acres of conservation and reforestation priorities for the YBWA. The USDA has classified 46,000 acres of unprotected lands in the YBWA as 4W+ lands, which means they are “severely limited” for agriculture because they are saturated at least 50% or more of the growing season. These 4W+ lands, most of which are adjacent to existing conservation lands, are a priority for WRE enrollment and are exempt from WRE enrollment and county wide caps.



The Lower Mississippi Alluvial Valley Joint Venture has identified 60,000 acres (which includes 20,000 acres of the unprotected 4W+ lands described above) as priorities for restoration and protection to benefit wetland forest breeding birds (e.g. Prothonotary Warbler, Wood Thrush, Wood Duck, Wild Turkey, Swallow-tailed Kite). Restoring and protecting bottomland hardwood forests also benefits other forest-dependent wildlife, including Louisiana Black Bear, at-risk bat species, and the swamp rabbit.



Prothonotary Warblers rely heavily on the Yazoo Backwater Area during spring migration.
Photo: Gary Robinette/Audubon Photography Awards

Responsible Federal Agency and Partners: U.S. Department of Agriculture (Natural Resources Conservation Service) working with landowners, homeowners, communities, and non-governmental organizations.

Funding: Both programs are funded and regularly accept proposals for enrollment.

Multiple Benefits: Restoring enrolled lands to healthy wetlands would provide multiple benefits.

- **Reducing Flood Risks:** Restoring enrolled lands would provide significant flood damage reduction benefits, reduce emergency response costs, and help create safer and healthier communities. A single acre of wetland can store 1.5 million gallons of floodwater,¹⁰ preventing flood damages. For example, wetlands prevented \$625 million in flood damages in the 12 coastal states affected by Hurricane Sandy, and reduced damages by 20% to 30% in the four states with the greatest wetland coverage.¹¹ In its flood damage reduction recommendation for the Charles River in Massachusetts, the Corps of Engineers concluded that: "Nature has already provided the least-cost solution to future flooding in the form of extensive [riverine] wetlands which moderate extreme highs and lows in streamflow. Rather than attempt to improve on this natural protection mechanism, it is both prudent and economical to leave the hydrologic regime established over millennia undisturbed."¹²
- **Improving Water Quality and Groundwater Recharge:** Restoring enrolled lands will help purify water supplies, reduce nutrient loading into streams and rivers, and recharge groundwater in the YBWA. Irrigation in the Mississippi Delta, including the YBWA, has caused some of the most severe groundwater declines in the United States and highly damaging low-flow conditions in many Delta streams. Recent studies demonstrate the significant value of wetlands to groundwater recharge in the YBWA.¹³
- **Providing Vital Wildlife Habitat:** Restoring enrolled lands will provide essential benefits to fish and wildlife in the YBWA and beyond. Wetlands are some of the most biologically productive natural ecosystems in the world, and support an incredibly diverse and extensive array of fish

and wildlife. The wetlands in the YBWA support 450 species of birds, fish and wildlife and are used by 29 million migrating birds each year. The YBWA contains one of the last existing and most substantial tracts of highly productive bottomland hardwood forests in the Lower Mississippi River Alluvial Valley, and the U.S. Fish and Wildlife Service has determined that the YBWA is the area with the “greatest potential” for meeting breeding bird habitat restoration and protection needs within the Mississippi Alluvial Valley.¹⁴ Restoring wetlands in the YBWA is a conservation priority for the Lower Mississippi Valley Joint Venture. An additional 1.73 million acres of sustainable forest habitat are needed in the Mississippi Alluvial Valley to attain population goals for most forest-dependent bird species in the region.¹⁵

- **Sequestering Carbon:** The Mississippi Alluvial Valley was an early proving ground for carbon sequestration through forest restoration and protection. In the 1990’s public utilities provided millions of dollars to voluntarily offset their carbon emissions by expanding carbon sequestration on private lands and federal wildlife refuges. There is now renewed interest in facilitating, funding and expanding carbon sequestration incentives on private land in the region.
- **Creating Jobs and Economic Activity:** Restoration work associated with easement enrollment would create jobs. In Mississippi, the Fish and Wildlife Service Partners for Wildlife Program created 29.7 jobs for each million dollars spent on restoration, and \$1.63 of economic activity for each dollar spent on restoration in FY2011.¹⁶
- **Reducing National Flood Insurance Program Rates:** Protecting floodplains has the largest impact on lowering National Flood Insurance Program (NFIP) rates for communities participating in the voluntary Community Rating System Program (CRS). Participation in the CRS can reduce NFIP rates from 15% to 45%. The CRS credits over 90 elements of comprehensive floodplain and watershed management, including significant credits for preserving natural floodplain open space, acquiring flood-prone land and returning it to its natural state, and protecting and restoring natural floodplain functions and habitat.
- **Avoiding Farm Subsidy Costs:** Enrolling cropped wetlands in Wetland Reserve Easements reduces the costs of commodity, federal crop insurance, and noninsured crop disaster assistance programs. A recent study documents these avoidance benefits (present value of avoided costs less the Wetlands Reserve easement and restoration costs) in Mississippi at \$870 per acre.¹⁷

Program Details—Wetland Reserve Easements:

- Cropped and forested lands can be enrolled in the Wetland Reserve Easement Program (WRE). Enrolled lands are taken out of agricultural production and restored to wetlands.
- Enrollment provides direct payments to landowners, currently up to \$3,100 per acre.¹⁸ USDA also pays to restore the enrolled lands. Landowners can make additional profits by selling or leasing the land for hunting, fishing, or other uses compatible with maintaining the restoration. Landowners may also be eligible for a tax deduction.
- Lands classified by USDA as 4W+ are “severely limited” for agriculture because they are saturated at least 50% or more of the growing season. The 2014 Farm Bill exempted 4W+ lands from WRE enrollment and county-wide caps. At least 46,000 acres of 4W+ lands in the YBWA are not in conservation, with many of these acres adjacent to existing conservation lands.
- The WRE program is extremely popular in Mississippi. At least 186,000 acres—including almost 80,000 acres in the YBWA counties—have already been enrolled in the WRE program in

Mississippi (in both the Wetlands Reserve Program and WRE programs which are now combined), according to the NRCS.

Program Details—Floodplain Easements:

- Both cropland and residential properties may be enrolled in the USDA Floodplain Easement program. Cropped lands are taken out of agricultural production and restored. Structures located within the area of a floodplain easement are demolished and removed, or relocated outside of the affected floodplain, and the lands are then restored.
- Enrollment provides direct payments to landowners, currently up to \$3,100 per acre.¹⁹ USDA pays to restore the enrolled lands. USDA also pays the costs of demolishing and removing, or relocating structures out of the affected floodplain. Landowners can make additional profits by selling or leasing the land for hunting, fishing, or other uses compatible with maintaining the restoration. Landowners may also be eligible for a tax deduction.

2. Pre-Disaster Mitigation Programs (FEMA)

Goal: Significantly expand pre-disaster mitigation planning and protection in the YBWA to reduce the risk of damage from future high water events and increase community resilience.

Responsible Federal Agency and Partners: Federal Emergency Management Agency working with the State of Mississippi and local governments.

Funding: FEMA’s Building Resilient Infrastructure and Communities (BRIC) Grant Program and Flood Mitigation Assistance Program are well funded and accept proposals yearly. FEMA can provide free Flood Risk Management Workshops for elected officials and community administrators to assist communities in reducing flood risks and increasing resilience.

Benefits: Significant public benefits through creation of safer communities by improving resilience, eliminating impacts of future flood events, and providing long-term solutions to flooding problems. Effective pre-disaster mitigation reduces loss of life and property damage from future floods, minimizes flood disaster disruptions, and allows more rapid recovery when flooding does occur. On average, \$1 spent on hazard mitigation through a federally funded mitigation grant saves \$6 in future disaster costs. Federal grants provide \$7 in benefits for each \$1 invested in riverine flood mitigation.

Program Details—FEMA BRIC Program:

- The BRIC Program provides funding to states, tribes, and local communities to reduce overall risk to the population and structures from future hazard events and increase community resilience through funding hazard mitigation projects and activities.
- The BRIC priorities are to incentivize: public infrastructure projects; projects that mitigate risk to one or more lifelines; projects that incorporate nature-based solutions; and adoption and enforcement of modern building codes.
- The BRIC program typically covers up to 75% of eligible activity costs, but “small impoverished communities” are eligible for coverage of up to 90% of eligible costs. A small impoverished community is an economically disadvantaged community with 3,000 or fewer individuals having an average per capita annual income not exceeding 80% of the national per capita income.
- The BRIC program is funded through a 6% equivalency set-aside of all disaster expenditures from the Disaster Relief Fund. The BRIC program was funded at \$500 million in FY20.

Program Details—FEMA Flood Mitigation Assistance Program:

- The [Flood Mitigation Assistance \(FMA\) Program](#) provides funding to states, tribes, and local governments to reduce or eliminate the risk of repetitive flood damage to buildings and structures insured under the National Flood Insurance Program. [FMA funding may cover up to 100% of costs to address severe repetitive loss properties and up to 90% of costs to address repetitive loss properties.](#) Other activities will be funded up to 75%.
- The FMA program was funded at \$200 million in FY20.

Program Details—Floodplain Management Training:

- FEMA can provide free Flood Risk Management Workshops for elected officials and community administrators to assist communities in reducing flood risks and increasing resilience. [Trainings include information on the National Flood Insurance Program, including its history, standards, regulations and administration; floodplain mapping; flood hazard mitigation; and floodplain management for environmental benefits.](#) FEMA can also provide additional relevant trainings in the YBWA through its [Integrated Emergency Management Course](#).
- The [Association of State Floodplain Managers \(ASFPM\)](#) offers a [Certified Floodplain Management](#) program for public and private sector professionals that complements the FEMA floodplain management trainings. Anyone can join ASFPM and take the CFM exam for a nominal fee. ASFPM members and Certified Floodplain Managers® have access to unique resources that can help their communities more effectively administer FEMA programs, reduce flood insurance rates, and minimize flood damages.

3. Post-Disaster Recovery Programs (FEMA, USDA, HUD)

Goal: Prioritize disaster recovery funds to voluntary buy-outs and elevations of “severe repetitive loss” and “repetitive loss” properties in the YBWA, and improve essential community infrastructure.²⁰ FEMA has identified 198 severe repetitive loss properties in Issaquena and Sharkey counties (which are located entirely within the YBWA).²¹

Responsible Federal Agencies and Partners: Federal Emergency Management Agency, U.S. Department of Agriculture, U.S. Department of Housing and Urban Development (depending on program used), working with the State of Mississippi, local governments, property owners, and residents.

Funding: The FEMA Hazard Mitigation Grant Program is funded and accepts applications from state and local governments in areas covered by a Presidential disaster declaration. The USDA Community Facilities Grant Program is funded and accepts applications from rural communities with up to 20,000 residents in areas covered by a Presidential disaster declaration. Supplemental appropriations targeted to the YBWA would be required to take advantage of the HUD Community Development Block Grants – Disaster Recovery program and the HUD Community Development Block Grants – Mitigation program.

Benefits: Significant public benefits, including reducing flood risks and emergency response costs, creating safer and healthier communities, and restoring vital floodplain habitat. Increasing the resilience of roads and other community infrastructure improves community well-being and supports economic development. Homeowners are compensated for moving out of harm’s way or elevating homes and other structures to avoid future flood damages. Targeting buy-outs to the YBWA would help

refocus the HMGP program, which historically has disproportionately funded buy-outs in white communities rather than communities of color.

Program Details—FEMA Hazard Mitigation Grant Program:

- The FEMA [Hazard Mitigation Grant Program](#) (HMGP) provides grants to state and local governments in areas covered by a Presidential disaster declaration. FEMA accepts HMGP applications for one year after a federal disaster declaration with the possibility of up to a 180-day extension at the state's request. [Approximately 70% of FEMA buy-out projects are approved within two years of the associated disaster.](#)
- HMGP grants can be used to purchase flood-damaged properties from willing sellers at pre-flood values and preserve the land as open space, or to elevate structures.
- Any structure in the 100-year floodplain (*i.e.*, a Special Flood Hazard Area) [valued at up to \\$276,000 automatically qualifies for a FEMA-funded buy-out, and any structure in a Special Hazard Area valued at up to \\$175,000 automatically qualifies for a FEMA-funded elevation.](#) Other structures may also qualify if the buy-out or elevation would be cost-effective.
- The YBWA was eligible for HMGP grants through the April 23, 2019 [Federal Disaster Declaration 4429 \(as amended\)](#), which made FEMA's HMGP available to the entire state of Mississippi. Extending this Disaster Declaration would ensure that funding is available for the HMGP program in the YBWA, and any future applicable disaster declaration would re-trigger the availability of post-disaster recovery funds and programs to the YBWA.
- FEMA has funded 638 buy-outs in Mississippi, including 105 in Warren County, since the 1980s. In all, FEMA has funded the buy-out of more than 43,360 properties through 3,839 "projects" in 49 states. Of these properties, 96% suffered from river flooding or intense rains, while 4% suffered from coastal flooding. The HMGP has funded 96% of all FEMA buy-outs.
- Targeting buy-outs to the YBWA would help refocus the HMGP program, which historically has disproportionately funded buy-outs in white communities rather than communities of color, according to a 2019 NPR investigation. [For example, after the 2008 floods in Iowa, "households in high social vulnerability areas were less likely to obtain full financial compensation" from federally funded buyout programs and waited longer to receive acquisition funds.](#)

Program Details—USDA Community Facilities Grant Program:

- The USDA [Community Facilities Grant Program](#) provides grants to rural communities with up to 20,000 residents in areas covered by a Presidential disaster declaration. Funding under this grant program can be used to advance more than 100 types of projects, including the purchase, construction, or improvement of essential community facilities. Essential community facilities include such things as health care facilities, town halls, courthouses, community centers, fairgrounds, police and fire departments, libraries, museums, and food banks.
- The 2019 [Additional Supplemental Appropriations for Disaster Relief Act](#) appropriated \$150 million for grants under this program in areas where FEMA provided a notice declaring a Major Disaster Declaration, which includes the YBWA.

Program Details—HUD Community Development Block Grants – Disaster Recovery:

- The HUD Community Development Block Grants-Disaster Recovery Program (CDBG-DR) supplements FEMA disaster recovery funds to help cities, counties, and states recover from Presidentially-declared disasters, especially in low-income communities. Activities funded through these flexible grants must meet one of three national objectives: benefit low-and-moderate-income persons; aid in the prevention or elimination of slums or blight; or meet other

community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community where other financial resources are not available to meet such needs.

- Significant funding can be obtained through the CDBG-DR grant process. For example, Mississippi is currently finishing up two CDBG-DR grants for Hurricane Katrina recovery (\$5.06 billion and \$423 million) and a third CDBG-DR grant for the 2008 storms (\$11.7 million).

Program Details—HUD Community Development Block Grants – Mitigation:

- HUD Community Development Block Grants—Mitigation (CDBG-MIT) may be provided to CDBG-DR grant recipients to “carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses” including by supporting data-informed investments in high-impact mitigation projects; building state and local government capacity for comprehensively analyzing disaster risks; supporting adoption of policies that minimize future disaster costs; and maximizing the impact of funds by leveraging other funding sources.
- Congress appropriated \$12 billion in CDBG funds in February 2018 for mitigation activities related to qualifying disasters in 2015–2017, and HUD has allocated an additional \$3.9 billion, bringing the amount available for mitigation to nearly \$16 billion.

Targeting these available and funded programs to the YBWA would provide immediate, cost-effective, and sustainable flood relief to underserved communities in the YBWA while protecting nationally significant wildlife resources.

Endnotes

¹ U.S. Environmental Protection Agency, Final Determination of The U.S. Environmental Protection Agency’s Assistant Administrator for Water Pursuant to Section 404(C) of the Clean Water Act Concerning the Proposed Yazoo Backwater Area Pumps Project, Issaquena County, Mississippi (August 31, 2008).

² USDA data compiled through the Environmental Working Group Farm Subsidy Database, shows that farms in the 16 zip codes that fall within the YBWA received a total of \$1.05 billion in farm subsidy payments between 1995 and 2019, with the top 5 recipients receiving a total of \$20.5 million, \$17.4 million, \$15.5 million, \$14.2 million, and \$10.7 million, respectively. The top 5 recipients in each zip code received a total of \$430.7 million—an average of \$215,000 for each of 80 recipients every year for 25 years—while 272 recipients received more than \$1 million each for an average of \$40,000 a year for each recipient every year for 25 years.

³ Operation of the Yazoo Pumps would put downstream frontline communities on the receiving end of an additional 9 billion gallons of water a day when the Yazoo River is already at flood stage. Communities in the Yazoo Backwater Area could flood if that massive influx of water overtopped or damaged the Yazoo Backwater Levee, which is at risk of crevassing and is so low that it is not accredited to handle a 100-year flood. Collapse of this levee would flood the very communities the pumps are purported to protect.

⁴ 2020 Final Supplement No. 2 To The 1982 Yazoo Area Pump Project Final Environmental Impact Statement (FSEIS), Appendix C (Tables), Table 5.3 (the “sloped pool” model is the most accurate).

⁵ Since completion of the Yazoo Backwater Levee in 1978, there has been a significant decline in the elevation of backwater floods, with water levels in the YBWA reaching the 20-year floodplain elevation just one time—during the unprecedented flood of 2019. From 1978 to 2018, water levels in the YBWA reached the 10-year floodplain just 2 times. By comparison, in 1973 flooding in the YBWA reached 101.48 feet, which is well above the 100 year floodplain elevation. [U.S. Army Corps of Engineers Rivergages Website.](#)

⁶ The Theodore Roosevelt Wildlife Refuge Visitor Center is “one of the most significant investments in tourism infrastructure” in the Delta.

⁷ The Mississippi Delta National Heritage Area, which includes all the YBWA counties, was established by Section 8008 of the Omnibus Federal Land Management Act of 2009, [Pub. L. 111–11](#) (16 USC 461 note) to preserve and

promote the landscape, culture and history of the Mississippi Delta. Section 8008 authorizes appropriations of up to \$1 million a year through 2024, and establishes a management authority and a local coordinating entity to assist in developing recreational and educational opportunities in the Heritage Area and increasing public awareness of, and appreciation for, natural, historic, scenic, and cultural resources of the Heritage Area.

⁸ Outdoor Industry Association, Economic Value of Recreation in Mississippi 2017 (https://outdoorindustry.org/wp-content/uploads/2017/07/OIA_RecEcoState_MS.pdf).

⁹ U.S. Fish and Wildlife Service, 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, State Overview, Table 3.

¹⁰ Environmental Protection Agency, "Wetlands: Protecting Life and Property from Flooding." EPA 843-F-06-001. (2006) (factsheet).

¹¹ Narayan, S., Beck, M.B., Wilson, P., et al., The Value of Coastal Wetlands for Flood Damage Reduction in the Northeastern USA. *Scientific Reports* 7, Article number 9463 (2017), doi:10.1038/s41598-017-09269-z (available at <https://www.nature.com/articles/s41598-017-09269-z>).

¹² American Rivers, Unnatural Disasters, Natural Solutions: Lessons From The Flooding Of New Orleans (2006) (quoting USACE, from Massachusetts Department of Fish and Game, *Functions of Riparian Areas for Flood Control*, http://www.mass.gov/dfwele/river/pdf/riparian_factsheet_1.pdf.)

¹³ Ying Ouyanga, et al., Estimating impact of forest land on groundwater recharge in a humid subtropical watershed of the Lower Mississippi River Alluvial Valley, *Journal of Hydrology: Regional Studies* 26 (2019) 100631 (wetlands in the lower Yazoo River Basin provide the highest rates of groundwater recharge while agricultural lands provide the lowest rates); Michael Gratzner, et al., Quantifying Recharge to the Mississippi River Valley Alluvial Aquifer from Oxbow Lake-Wetland Systems, (2017) (oxbow lake wetlands near Belzoni, MS produce "significant vertical recharge" into the Mississippi River Valley Alluvial Aquifer).

¹⁴ U.S. Fish and Wildlife Service, Fish and Wildlife Coordination Act Report (October 23, 2006), 2007 Final SEIS, Appendix 3 at 7.

¹⁵ Elliott, A.B.; Mini, A.E.; McKnight, S.K.; Twedt, D.J. Conservation–Protection of Forests for Wildlife in the Mississippi Alluvial Valley. *Forests* 2020, 11, 75 (available at <https://www.mdpi.com/1999-4907/11/1/75>).

¹⁶ U.S. Fish and Wildlife Service, The Contribution of Partners for Fish and Wildlife Program and Coastal Program Restoration Projects to Local U.S. Economies (September 2013) at 18.

¹⁷ Wetland Reserve Easement Program Economic Assessment: Estimated Commodity Program and Crop Insurance Premium Subsidy Cost Avoidance Benefits, Prepared for the Nature Conservancy (June 2, 2018) (authored by retired U.S. Department of Agriculture economist Dr. Doug Lawrence).

¹⁸ In Mississippi, payments for enrolling lands in the WRE and Floodplain Easement Programs are the same. Easement purchase prices on forested land are slightly less than on cropland. The payment schedule is established by USDA on a yearly basis and may fluctuate slightly from year to year.

¹⁹ *Id.*

²⁰ "Severe repetitive loss properties" are properties covered by the National Flood Insurance Program (NFIP) that have been the subject of four or more damage claims of more than \$5,000 each, or two or more claims in which the insured structure sustained cumulative damage exceeding its fair market value. These structures, which are mostly homes, are priorities for elevation or removal. "Repetitive loss properties" are properties covered by the NFIP that have flood-related damage on two occasions where the cost of the repair equaled or exceeded 25% of the market value of the structure at the time of each such flood event; and the second incidence of flood-related damage increased the cost of flood-insurance compliance coverage.

²¹ Of these severe repetitive loss properties, 150 are in Issaquena county and 48 are in Sharkey county. An additional 1,191 severe repetitive loss properties are located in Warren, Washington, and Humphreys counties, but large portions of these counties (and thus, many of these properties) are located outside the YBWA.

November 30, 2020

Via email: YazooBackwater@usace.army.mil

Colonel Robert A. Hillard
District Engineer
U.S. Army Corps of Engineers
Vicksburg District
4133 Clay Street
Vicksburg, MS 39183-3433

Re: Yazoo Backwater Pumps Draft Supplemental Environmental Impact Statement 2 (October 2020)

Dear Col. Hillard:

The undersigned 114 wetland and aquatic scientists and professionals respectfully urge you to withdraw the highly problematic Draft Supplemental Environmental Impact Statement (DSEIS) for the Yazoo Pumps and abandon efforts to build this destructive project. The U.S. Army Corps of Engineers (Corps) should instead turn its attention to sustainable non-structural and restoration-based solutions that can provide multiple benefits to communities in the project area while protecting the region's exceptional natural resources.

In 2008, the Environmental Protection Agency (EPA) appropriately used its Clean Water Act 404(c) authority to veto the Yazoo Pumps because they would cause "unacceptable adverse effects" to many tens of thousands of acres of "some of the richest wetland and aquatic resources in the Nation" including "a highly productive floodplain fishery, substantial tracts of highly productive bottomland hardwood forests that once dominated the [Lower Mississippi River Alluvial Valley], and important migratory bird foraging grounds."¹ This veto was strongly supported by more than 340 wetland and aquatic scientists and professionals, and the Society of Wetland Scientists, among many others.

The wetlands protected by the Clean Water Act veto support more than 430 species of birds, fish and wildlife; provide vital migratory habitat to more than 40 percent of the nation's waterfowl and one million shorebirds; and "protect and improve water quality by removing and retaining pollutants, temporarily store surface water, maintain stream flows, and support aquatic food webs by processing and exporting significant amounts of organic carbon."² Many thousands of acres of these wetlands are located in National Forest and National Wildlife Refuge lands, state-owned conservation lands, lands enrolled in federal conservation programs, and lands purchased and restored as mitigation for previously constructed federal water projects—lands that taxpayer dollars have long paid to protect and manage for people and wildlife.

The Clean Water Act veto has ensured protection of these hemispherically important wetlands for more than a decade. But these protections would be eliminated under the DSEIS, which recommends

¹ U.S. Environmental Protection Agency, Final Determination of The U.S. Environmental Protection Agency's Assistant Administrator for Water Pursuant to Section 404(C) of the Clean Water Act Concerning the Proposed Yazoo Backwater Area Pumps Project, Issaquena County, Mississippi (August 31, 2008) at i-iii, 72-73.

² 2008 Clean Water Act Final Determination at i.

construction of the same 14,000 cfs pumping station whose purpose, structure, operation, and impacts fall squarely within the scope of the 2008 veto.³

Disturbingly, the DSEIS does not evaluate a single alternative to this already-vetoed project despite numerous approaches that could sustainably reduce flood damages while improving the health of the region's vital wetlands—including moving people and property out of harm's way and enrolling lands in the wetland reserve easement program. It is equally troubling that the DSEIS does not adequately evaluate the risks of operating the Yazoo Pumps on public safety, as discussed below.

Notably, the DSEIS relies on methodologies explicitly rejected as improper by EPA in the 2008 veto; methodologies that by definition understate the project's impacts on the rich array of wetlands, rivers, streams, and wildlife in the project area. For example:

- **The DSEIS does not assess the full extent of wetland impacts.** Relying on a scientifically unsound methodology that was decisively rejected by EPA in the 2008 veto, the DSEIS improperly limits its assessment of wetland impacts to wetlands located within the 2-year floodplain that receive ≥ 14 consecutive days of flooding. The DSEIS further limits its assessment by looking only at changes to the duration of inundation on that small subset of wetlands; changes to the depth of inundation are not examined. The fundamental underpinnings of the science of wetland functions and values, ecological processes, ecosystem services, and fish and wildlife habitat requirements, make clear that the DSEIS has not assessed the full extent of wetland impacts.⁴ Notably, however, even this arbitrary and severely limited assessment of just some types of impacts to a small subset of wetlands in the project area acknowledges adverse impacts to 38,744 acres of wetlands in the 2-year floodplain.
- **The DSEIS incorrectly assesses lost wetland functions.** The DSEIS relies on an assessment of lost wetland functions that was decisively rejected by EPA in the 2008 veto. The DSEIS utilizes the Corps' 2007 Hydrogeomorphic Approach assessment to calculate lost wetland functions,⁵ despite EPA's conclusion in the 2008 veto that "certain modeling assumptions and factors used by the Corps in the application of [the 2007 Hydrogeomorphic Approach and Habitat Evaluation Procedure] tools lead to a significant underestimation of the proposed pumping station's adverse impacts on the aquatic ecosystem, as well as a significant overestimation of the project's environmental benefits."⁶
- **The DSEIS does not evaluate impacts on the multitude of large and small streams in the project area.** The DSEIS does not look at the impacts to the many streams in the project area, despite

³ The 2008 Clean Water Act 404(c) Final Determination covers impacts ranging from 28,400 to more than 67,000 acres of wetlands. The severely—and improperly—restricted wetland assessment in the DSEIS acknowledges at least 38,744 acres of wetland impacts.

⁴ E.g., William J. Mitsch and James G. Gosselink, *Wetlands* (3th ed.) (2015) at 112 (even small changes in the extent and level of inundation of a wetland can cause "massive changes in species composition and richness and in ecosystem productivity.")

⁵ DSEIS, Appendix F-3 (Wetlands) at 26 ("the [Functional Capacity Indices] scores reported in the 2007 FSEIS were selected to conduct the current analysis"). "Functional Capacity Indices (FCI) are the result of combining the [Hydrogeomorphic Approach] assessment's hydrologic, plant, soil and landscape indicators to estimate a change in function as the result of change in indicators." 2008 Clean Water Act 404(c) Final Determination at 28.

⁶ 2008 Clean Water Act Final Determination at 47. A full analysis of the problems with the Corps' 2007 Hydrogeomorphic Approach analysis can be found at Appendix 6 of the 2008 Clean Water Act Final Determination.

the fact that the Pumps-induced wetland losses could lead to increased sedimentation and nutrient pollution, and to the reduction of flows in those streams. The Pumps-induced wetland losses could also reduce groundwater recharge in the project area, exacerbating the already-significant declines in the Mississippi Alluvial Plain aquifer.

- **The DSEIS does not propose adequate mitigation and does not comply with critical, mandatory compensatory mitigation requirements.** Because the DSEIS does not fully evaluate adverse impacts to aquatic resources from the Yazoo Pumps, it also cannot have proposed adequate mitigation to offset those significant adverse impacts. The DSEIS also repeats many of the same mitigation errors identified in the 2008 veto, including the wholesale failure to identify specific mitigation sites, provide a detailed mitigation plan, or ensure adequate amounts of compensatory mitigation. The DSEIS proposes just 2,405 acres of reforestation of yet-to-be-identified frequently flooded lands as in-kind mitigation to offset the severe underestimate of 38,744 acres of wetlands impacts identified in the DSEIS.⁷
- **The DSEIS does not evaluate a wide array of impacts to fish and wildlife.** Because the DSEIS does not fully evaluate adverse impacts to internationally significant aquatic resources, it also cannot have adequately assessed the project's impacts to fish and wildlife. For example, the DSEIS does not evaluate how many acres would no longer flood for 8 consecutive days with the Pumps in place, even though the DSEIS makes clear that all fish spawning habitat would be lost in such areas. The entire analysis of waterfowl impacts is based on a single duck species even though more than 40 percent of the nation's waterfowl migrate through the project area twice each year, including more than 30 species of waterfowl that rely on bottomland hardwood wetlands. The shorebird analysis is limited to a few very general paragraphs even though up to one million shorebirds migrate through the project area twice each year, as highlighted in the 2008 veto. The DSEIS does not include the required Fish and Wildlife Coordination Act report, which would have provided valuable insight from the nation's fish and wildlife experts.
- **The DSEIS does not adequately assess the risks of operating the Yazoo Pumps on public safety.** The DSEIS includes just one paragraph on the potential public safety risks associated with the Yazoo Pumps that rejects significant concerns that have been raised regarding the impacts of operating the Pumps. The Yazoo Pumps will discharge 9 billion gallons of water a day into the Yazoo River when the River is already at flood stage, which could increase flood risks for downstream and nearby communities. Communities within the Yazoo Backwater Area would also be at risk if the water discharged by the Pumps overtops or otherwise undermines the integrity of the Yazoo Backwater Levee, which has an elevated risk of crevassing as a result of overtopping and is not accredited due to its low elevation that is well below the requisite base flood elevation plus three-feet of freeboard.⁸ Such overtopping could lead to the collapse of the Yazoo Backwater Levee, which would cause catastrophic flooding for the very communities the Pumps purport to protect.

⁷ The DSEIS also proposes out-of-kind mitigation consisting of the installation of groundwater wells far outside of the project area that would result in even more groundwater pumping from the already severely-depleted Mississippi Alluvial Plain aquifer.

⁸ National Levee Database at <https://levees.sec.usace.army.mil/4/levees/system/3903000041/items> (accessed November 6, 2020). Lack of accreditation means that the Yazoo Backwater Levee cannot protect Yazoo Backwater communities during flood events at or greater than the 1% chance of exceedance (100-year flood event).

The Lower Mississippi Alluvial Valley has already lost 80 percent of its original wetlands. The majority of those losses have been traced directly to the effects of federal flood control and drainage projects.⁹ From just the 1970s to 2006, the Yazoo Backwater Area lost 11 percent of its remaining forested wetlands.¹⁰ The loss of many tens of thousands of additional acres of wetlands from the Yazoo Pumps would have catastrophic implications for the ecology of the region and for the fish and wildlife that rely on those resources.

Thank you for your careful consideration of these comments.

Sincerely,

* For all signatories, affiliations are listed for identification purposes only.

Aimee Delach, MS
Senior Policy Analyst
Defenders of Wildlife
Washington, DC

Allison Cowie, MS
Wetland Specialist
Oregon Department of Transportation
Bend, OR

Amy Rosemond, PhD
Professor
University of Georgia
Athens, GA

Andrea C Stumpf, MS
Research Technician
University of Notre Dame
Notre Dame, IN

Andrew Carter, PhD
Senior Conservation Policy Analyst
Defenders of Wildlife
Washington, DC

Anne Jefferson, PhD
Associate Professor of Geology
Kent State University
Kent, OH

Ashley Marie Long, PhD
Assistant Professor
Louisiana State University School of Renewable
Natural Resources
Baton Rouge, LA

Auriel Fournier, PhD
Forbes Biological Station Director - Waterfowl
and Wetland Bird Ecologist
Illinois Natural History Survey - University of
Illinois
Havana, IL

Barbara Muhling, PhD
Scientist
UC - Santa Cruz
CA

Bianca Wentzell, PhD
Assistant Professor of Biology
St. Thomas Aquinas College
Sparkill, NY

⁹ Department of the Interior, *The Impact of Federal Programs on Wetlands, Volume I: The Lower Mississippi Alluvial Plain and the Prairie Pothole Region, A Report to Congress by the Secretary of the Interior*, October 1988 at 60.

¹⁰ Dahl, T.E., J. Swords and M. T. Bergeson. 2009. *Wetland inventory of the Yazoo Backwater Area, Mississippi - Wetland status and potential changes based on an updated inventory using remotely sensed imagery*. U.S. Fish and Wildlife Service, Division of Habitat and Resource Conservation, Washington, D.C. 30 p. (available at <https://www.fws.gov/wetlands/documents/Wetland-Inventory-of-the-Yazoo-Backwater-Area-Mississippi.pdf>).

Bonnie McGill, PhD
Science Communication Fellow & Ecosystem
Ecologist
Carnegie Museum of Natural History
Pittsburgh, PA

Bruce Collette, PhD
Research Associate
Smithsonian Institution
Casanova, VA

Bryan M Maitland, PhD
Wisconsin Water Resources Science-Policy
Fellow
University of Wisconsin
Madison, WI

Carl Richards, PhD
Retired Research Director
USEPA
Memphis, TN

Charles Andrew Cole, PhD
Associate Professor
Penn State University
State College, PA

Christine Everett, MS
Ecological Consultant
CJ Everett LLC
North Pole, AK

Christopher Berger, BS
Senior Ecologist
SWS
Seattle, WA

Christopher Frazier, MS
Laboratory Manager
Texas A&M University - Corpus Christi
Corpus Christi, TX

Christopher J. Victoria, BS
Environmental Scientist
Anne Arundel County Bureau of Watershed
Protection & Restoration
Annapolis, MD

Christopher Neill, PhD
Senior Scientist
Woodwell Climate Research Center
Falmouth, MA

David Edds, PhD
Professor Emeritus
Emporia State University
Emporia, KS

David Heller, MS
Scientist
Independent Science Review Panel
Portland, OR

David Kaplan, PhD
Associate Professor
University of Florida, Howard T. Odum Center
for Wetlands
Gainesville, FL

Deborah J Henson, PhD
Environmental Science Program Manager
University of Massachusetts Amherst
Amherst, MA

Devyani Kar, PhD
Coastal Scientist
Environmental Defense Fund
Baton Rouge, LA

Dirk Vanderklein, PhD
Professor of Biology
Montclair State University
Montclair, NJ

Edwin J Gossett, MS
Biologist (Retired), U.S. Army Corps of Engineers
Ohio State University
Washington, OH

Elisabeth S. Brackney, MS
Wetlands Ecologist (Retired)
Moscow, ID

Ellen Wohl, PhD
Professor of Geology
Colorado State University
Fort Collins, CO

Emily Caba, MS
Environmental Staff Engineer
RH2 Engineering, Inc.
Seattle, WA

Emily Schilling, PhD
Associate Professor
Augsburg University
Minneapolis, MN

Erik Hendrickson, MS
Organic Chemistry Researcher
NRRI
Duluth, MN

Eve Henriksen, PWS, BS, Certificate in Wetland
Science and Management
Professional Wetland Scientist, Environmental
Analyst
Bothell, WA

Frank Jemejcic, MS
Fishery Biologist (Retired)
Upper Mon River Association
Morgantown, WV

Frank P. Thrower, MS
Fisheries Research Biologist
USDOC NOAA (Retired)
Juneau, AK

Gillian Davies, MES
Senior Ecological Scientist
Tufts Global Development And Environment
Institute
Medford, MA

Grant E Gurnee, BS
Owner/Senior Restoration Ecologist
Ecosystem Services, LLC
Longmont, CO

Haley M Kelly, MS
Environmental Scientist
Ecotone, Inc.
Parkville, MD

Heather Patti, MS
Senior Ecologist/Project Manager
TRC Companies
Raleigh, NC

J. Brock Freyer, MS
Wetland Ecologist
State Government
Roxbury, VT

J. Patrick Megonigal, PhD
Associate Director of Research
Smithsonian Environmental Research Center
Edgewater, MD

Jacob Malcom, PhD
Director, Center for Conservation Innovation
Defenders of Wildlife
Washington, DC

James A. Schmid, Ph. .D, PhD
President
Schmid & Co., Inc., Consulting Ecologists
Media, PA

James E Perry, PhD, PhD
Professor of Marine Science
Virginia Institute of Marine Science
Gloucester Point, VA

James Groton, MS
Wetland Ecologist
University of Tennessee
Oak Ridge, TN

Jan Conitz, MS
Fisheries Biologist
US Fish and Wildlife Service
Fairbanks, AK

Jan M. Conitz, MS
Fisheries Biologist
U.S. Fish and Wildlife Service
Fairbanks, AK

Janet R Keough, PhD
Past President, Society of Wetland Scientists
Society of Wetland Scientists
MN

Jason Chircop, MS
Environmental Scientist
Intermountain Aquatics, INC
Driggs, ID

Jay A. Nelson, PhD
Professor
Towson University
Towson MD

Jeff Wesner, PhD
Associate Professor
University of South Dakota
Vermillion, SD

Jenna Odegard, MS
Environmental Scientist, Aquatic Ecologist
MAD Scientist Associates
Westerville, OH

Jennifer McCarthy, MS
Environmental Scientist (Retired)
Bedford, MA

Jeremy Sueltenfuss, PhD
Assistant Professor
Colorado State University
Fort Collins, CO

Joanna M Lemly, MS
Wetland Ecologist
Colorado Natural Heritage Program
Fort Collins, CO

John Brazner, PhD
Research Wetland Biologist
Nova Scotia Department of Lands and Forestry
Kentville, NS

John Galbraith, PhD
Professor of Soil and Wetland Sciences
Virginia Tech
Blacksburg, VA

John Kominoski, PhD
Associate Professor
Florida International University
Miami, FL

Julie Ash, BS Civil Engineering
Senior Water Resource Engineer
Stillwater Sciences
Lafayette, CO

Kate McPherson, BS
Narragansett Bay Riverkeeper
Save the Bay
RI

Katherine Osborne, MS
Fisheries Biologist
CA

Keith Hannon, MLA
Ecologist
University of Massachusetts Amherst
Worcester

Kelly Carter-Lynn, MS
Biological Sciences Laboratory Coordinator
University of Washington Bothell
Bothell, WA

Kenneth G. Teague, PWS (emeritus), Certified
Senior Ecologist, MS
Retired from U.S. EPA, Region 6, Wetlands
Section
MS-LSU, BS-TAMU
Austin, TX

Kevin Ringelman, PhD
Associate Professor
Louisiana State University
Baton Rouge, LA

Kimberli Ponzio, MS
President
Society of Wetland Scientists - Professional
Certification Program
Gainesville, FL

Laura Craig, PhD
Director of Natural Resources
Princeton Hydro
Ringoes, NJ

Lauren Kinsman-Costello, PhD
Assistant Professor
Kent State University
Kent, OH

Lee Cook, MS
Senior Ecologist
Quest Ecology
FL

Linda Deegan, PhD
Senior Scientist
Woodwell Climate Research Center
Falmouth, MA

Logan Dougherty, BA in Ecology and
Evolutionary Biology
Scientist II
University of Colorado
Bellevue, WA

Matt Schweisberg, BS Wildlife Management
PWS, Principal
Wetland Strategies and Solutions, LLC
MA

Matthew Edward Brooks, MS
Ecologist
Golder Associates
Henrico, VA

Matthew Roberts, BS
Environmental Scientist
VS Engineering
Indianapolis, IN

Megan Dusing, BS
Principal Environmental Scientist
Stanley Consultants
Coralville, IA

Patrick L Rakes, MS
Director
Conservation Fisheries, Inc.
Knoxville, TN

Paul R Adamus, PhD
Wetland Scientist (Retired)
Oregon State University
Corvallis, OR

Paul R. Wetzel, PhD
Manager, Ada & Archibald MacLeish Field
Station
Smith College
Northampton, MA

Philip Stouffer, PhD
Professor of Renewable Natural Resources
LSU
Baton Rouge, LA

R. Eugene Turner, PhD
Faculty
Louisiana State University
LA

Rachel Puttmann, MS
Biologist
CO

Rebecca Pierce, BS
Rocky Mountain Chapter Vice President
Society of Wetland Scientists
Denver, CO

Reid Stamer, BS
Restoration Ecologist
Cedar Rapids, IA

RICHARD STANDAGE, BS, Certified Fisheries Professional
Retired USDA Forest Fisheries Biologist & Private Consultant
America Fisheries Society, OK & AR, National Hot Springs National Park, AR

Riley Gallagher, MS
Research Assistant
North Carolina State University
Raleigh, NC

Robert Christian, PhD
Distinguished Research Professor (Retired)
East Carolina University
Greenville, NC

Robert Smith, PhD
Assistant Professor
Lycoming College
PA

Robert Stewart Ph. D., PhD
Retired Director of the National Wetlands Research Center and Retired VP of Research at UL Lafayette
Lafayette, LA

SANDRA Crystall, BA
Professional Wetland Scientist
Society of Wetland Scientists
Bow, NH

Sara Brooke Benjamin, MS
Environmental Coordinator
UC Santa Barbara
Bellingham, WA

Sara Johnson, MS
Graduate Research Assistant
University of Illinois: Urbana-Champaign
Champaign, IL

Sarah H. Ledford, PhD
Assistant Professor
Georgia State University
Atlanta, GA

Sasha Vafaei, BS
Consultant
MXMetrics
WA

Shane Staten, PWS, MEM
Restoration Ecologist
Swallowtail
St. Louis, MO

Shannon Murphy, BS Wildlife and Fisheries Sciences
Hatchery Technician
Conservation Fisheries Inc.
Knoxville, TN

Shawn Smyth, Bachelors of Landscape Architecture
Environmental Planner
EN Engineering
Baltimore, MD

Sigrid D.P. Smith, PhD
Assistant Professor / Biostatistician
Delaware State University
Dover, DE

Stefanie Kroll, PhD
Watershed Ecology Section Leader
Academy of Natural Sciences of Drexel University
Philadelphia, PA

Stephen Gleaholt, MS
Aquatic Researcher
Indiana University
Bloomington, IN

Stephen M Fried, PhD
Fishery Biologist (Retired)
Alaska Department of Fish and Game and US Fish and Wildlife Service
Exeter, NH

Stephen P. Kunz, BS
Senior Ecologist
Schmid & Company, Inc., Consulting Ecologists
Media, PA

Stephen Richter, PhD
Professor of Biology
Eastern Kentucky University
Richmond, KY

Steve Lanigan, MS
Retired Watershed Program Manager
US Forest Service
OR

Steven M Martin, MS
Environmental Scientist (Retired)
USACE Institute for Water Resources
Norfolk, VA

Susan Rowley, BS - Environmental Studies
Assistant Vice President/Ecological Consulting
Director
ENCAP, Inc.
DeKalb, IL

Ted Weber, MS
Climate Adaptation Analyst
Defenders of Wildlife
Annapolis, MD

Terry Maret, MS
Biologist (Retired)
U.S. Geological Survey
Boise, ID

Tiffany A Schriever, PhD
Assistant Professor
Western Michigan University
Kalamazoo, MI

TJ Stetz, MS
Federal Ecologist (Retired)
Society of Wetland Scientists
Seattle, WA

Tom Touchet, MS
Senior Wetland Scientist
Society of Wetland Scientists
Haverhill, MA

Virginia Flynn, MS
Professional Wetland Scientist
Kaskaskia Engineering Group, LLC
Belleville, IL

Wilfred Wollheim, PhD
Associate Professor
University of New Hampshire
Durham, NH

Zach Pesch, MS
Forestry Tech II
Unity College
Boulder, CO

Zachery Holmes, BS Wildlife Ecology and
Conservation
Avian Ecologist
Quest Ecology, Manatee County Audubon
Society, University of Florida
Wimauma, FL

November 30, 2020

Submitted by email to YazooBackwater@wsaca.army.mil

Colonel Robert A. Hilliard
Commander
U.S. Army Corps of Engineers
Vicksburg District
ATTN: CEMVK-PP
4133 Clay Street
Vicksburg, MS 39183-3435

Mr. Kenneth Parrish
Regional Program Manager
U.S. Army Corps of Engineers
Vicksburg District
ATTN: CEMVK-PP
4133 Clay Street, Room 248
Vicksburg, MS 39183-3435

Re: Draft Supplement No. 2 to the 1982 Yazoo Area Pump Project Final Environmental Impact Statement

Dear Col. Hilliard and Mr. Parrish:

On behalf of our millions of members and supporters, the 123 undersigned conservation, faith-based, social justice, and recreation organizations urge the U.S. Army Corps of Engineers (Corps) to permanently abandon efforts to build the environmentally devastating, extremely costly, highly controversial, and long-vetoed Yazoo Pumps project. The Corps should withdraw the deeply flawed Draft Supplemental Environmental Impact Statement (DSEIS), and turn its attention to natural infrastructure and non-structural solutions that will deliver real and sustainable benefits to communities while protecting the region's rich natural resources.

In 2008, the Environmental Protection Agency (EPA) used its Clean Water Act 404(c) authority to veto the Yazoo Pumps because the project would cause "unacceptable damage" to "some of the richest wetland and aquatic resources in the nation."¹ This veto was upheld by the U.S. Court of Appeals for the Fifth Circuit, ensuring that EPA's Clean Water Act 404(c) authority would continue to provide a critical last line of defense against this egregiously damaging project.

In clear violation of EPA's overriding veto-authority under Clean Water Act Section 404(c), the DSEIS recommends construction of the same 14,000 cfs pumping station whose purpose, structure, operation, and impacts fall squarely within the scope of the 2008 veto.² Alarming, the Pumps would likely increase flood risks for downstream communities and could result in the overtopping and possible collapse of the Yazoo Backwater Levee, causing catastrophic flooding for the very communities the

¹ The Environmental Protection Agency's 2008 Clean Water Act 404(c) Final Determination garnered overwhelming support, including from: the U.S. Fish and Wildlife Service; more than 120 conservation organizations; 340 independent scientists; the Society of Wetland Scientists; the Association of State Wetland Managers; a former EPA Administrator; four former EPA Assistant Administrators for Water; a former Deputy Assistant Secretary of the Army for Civil Works; and 99.9% of the 48,000 comments submitted during the veto process, including 90% of comments submitted by Mississippi residents.

² The 2008 Clean Water Act 404(c) Final Determination covers impacts ranging from 28,400 to more than 67,000 acres of wetlands. The severely—and improperly—restricted wetland assessment in the DSEIS acknowledges at least 38,744 acres of wetland impacts, which is discussed further on page 2.

Yazoo Pumps are purported to protect.³ Even at full operation, this unquestionably vetoed project would leave 65 percent of flooded lands underwater and would take weeks to months to drawdown floodwaters on the remaining lands, as acknowledged in the DSEIS.

The Yazoo Pumps would damage up to 200,000 acres of ecologically rich wetlands that provide hemispherically significant habitat in the heart of the Mississippi River flyway. These wetlands support more than 450 species of birds, fish and wildlife, including migrating species like geese, ducks, pallid sturgeon, monarch butterflies, and American eels. Many thousands of these acres of wetlands are located in National Forest and National Wildlife Refuge lands, state-owned conservation lands, lands enrolled in federal conservation programs, and lands purchased and restored as mitigation for previously constructed federal water projects—lands that taxpayer dollars have long paid to protect and manage as wetland systems for people and wildlife.

The DSEIS fails to consider even a single alternative to the destructive and dangerous Yazoo Pumps, in direct violation of the National Environmental Policy Act, modern approaches to floodplain management, and common sense. In fact, EPA has repeatedly urged the Corps to consider non-structural alternatives to flood damage reduction. Yet, the DSEIS makes no mention of the detailed recommendations for a suite of proven, low-cost, natural and non-structural measures proposed by the conservation community during the scoping period.⁴ These measures, which include moving people and property out of harm's way and compensating farmers to restore cropland back to wetlands, could provide immediate, effective, sustainable, and environmentally sound relief to communities in the Yazoo Backwater Area.

In addition to failing to examine other alternatives—which strikes at the very heart and purpose of an environmental impact statement—the DSEIS recycles the same flawed analyses rejected by EPA in its 2008 veto:

- The DSEIS ignores a wide array of highly disastrous impacts to hemispherically significant wetlands. The DSEIS looks only at some impacts to a small subset of wetlands in the project area. The DSEIS arbitrarily and improperly limits its wetlands analysis to examining changes to the duration of inundation of wetlands in the 2-year floodplain that receive ≥ 14 consecutive days of flooding. This improperly limited approach was decisively rejected by EPA in its 2008 veto. By reusing the same, flawed approach rejected by EPA in its veto, the Corps once again significantly underestimates the project's impacts to wetlands and aquatic habitat. Notably, however, even this severely and improperly limited underestimate acknowledges adverse impacts to 38,774 acres of wetlands in the 2-year floodplain.
- The DSEIS does not evaluate the impacts of operating the Yazoo Pumps on the multitude of large and small streams in the project area, or on the already severely-depleted aquifer underlying the Mississippi Alluvial Plain. The significant project-induced loss of wetlands will affect the many streams in the project area, including by increasing sedimentation and nutrient pollution and reducing groundwater recharge; these impacts must be evaluated. Reducing groundwater recharge would also exacerbate the already-significant declines in the Mississippi Alluvial Plain aquifer, which is the third largest provider of groundwater in the United States.

³ The DSEIS drastically reduces the much-touted reforestation component from reforestation of 55,600 acres in the 2007 plan to reforestation of just 2,700 acres in the plan proposed in the DSEIS.

⁴ A copy of these detailed recommendations are attached to this letter.

Irrigation in the Mississippi Delta, including in the Yazoo Backwater Area, has caused some of the most severe groundwater declines in the country and highly damaging low-flow conditions in many Mississippi Delta streams.⁵

- **The DSEIS does not accurately assess impacts to fish and wildlife resources.** The failure of the DSEIS to assess the full suite of impacts to wetlands and streams in the project area renders the evaluation of fish and wildlife impacts invalid. For example, the DSEIS does not evaluate how many acres would no longer flood for 8 consecutive days with the Pumps in place even though all fish spawning habitat would be lost in those areas. The analyses of fish and wildlife impacts also suffers from many other types of flaws. For example, the entire analysis of waterfowl impacts is based on a single duck species even though more than 40 percent of the nation's waterfowl migrate through the project area twice each year, including more than 30 species of waterfowl that rely on bottomland hardwood wetlands. The DSEIS limits its analysis of shorebird impacts to just a few highly general paragraphs even though 300,000 to 1,000,000 shorebirds migrate through the project area twice each year, as recognized in the 2008 veto.
- **The DSEIS does not meaningfully assess the risk of increasing flooding for communities.** The DSEIS includes just one paragraph—with no supporting documentation—that rejects major concerns raised during the scoping period. The conservation community, as well as EPA, highlighted the serious threat of the Pumps increasing flood risks for communities in north Vicksburg and the Yazoo Backwater Area by pumping an additional 9 billion gallons of water per day into the Yazoo River during flood events. Downstream communities would be on the receiving end of that significant extra water when the Yazoo River is already at flood stage. Communities within the Yazoo Backwater Area would be at risk if water pumped into the Yazoo River overtopped or undermined the integrity of the Yazoo Backwater Levee, which is at risk of crevassing and is not certified to handle a 100-year flood.⁶ Collapse of that levee would cause catastrophic flooding for the very communities the Pumps are purported to protect.
- **The DSEIS does not comply with critical and mandatory compensatory mitigation requirements.** Because the DSEIS does not fully evaluate adverse impacts to aquatic resources, it also cannot—and does not—propose adequate mitigation. The DSEIS also repeats many of the same mitigation errors identified in the 2008 veto, including the wholesale failure to identify specific mitigation sites, provide a detailed mitigation plan, or ensure adequate amounts of compensatory mitigation to offset the project's significant and unacceptable impacts. Rather than addressing the errors identified by EPA in its 2008 veto, the DSEIS eliminates 1,300 acres of mitigation and 32,900 acres of additional restoration that had been proposed in 2007. The Corps is now proposing just 2,403 acres of reforestation of yet-to-be-identified flooded lands as compensatory mitigation along with a self-defeating proposal to install groundwater wells far outside of the project area. The DSEIS provides no demonstration that such wells would serve to offset project impacts instead of further depleting the already severely-depleted aquifer underlying the Mississippi Alluvial Plain. The significant problems with the proposed mitigation are amplified by the fact that mitigation is still far from an exact science and many mitigation

⁵ E.g., Killian, C.D., Asquith, W.H., Barlow, J.R.B. et al., Characterizing groundwater and surface-water interaction using hydrograph-separation techniques and groundwater-level data throughout the Mississippi Delta, USA. *Hydrogeol J* 27, 2167–2179 (2019) (available at <https://doi.org/10.1007/s10040-019-01981-6>).

⁶ National Levee Database at <https://levees.sec.usace.army.mil/E/levees/system/3805000041/items> (accessed November 6, 2020).

projects fail. The proposed mitigation measures are wholly inadequate to satisfy the Corps' obligation to fully mitigate the devastating impacts of the project, and will not even offset the 38,744 acres of wetlands impacts identified by the Corps—itsself a severe underestimate.

- The DSEIS does not include the mandatory Endangered Species Act analyses, even though numerous threatened and endangered species are found in the project area, including the severely endangered pondberry. The DSEIS states only that the Corps continues to engage in coordination on the pondberry with the Fish and Wildlife Service.
- The DSEIS does not include the mandatory Fish and Wildlife Coordination Act report or related consultation, which would provide important information and recommendations from the nation's fish and wildlife experts. The DSEIS analysis of impacts to fish and wildlife could have been improved by careful compliance with recommendations made pursuant to the Fish and Wildlife Coordination Act.
- The DSEIS does not include an estimate of the project's costs or benefits, even though the Corps may not recommend construction of the Yazoo Pumps unless the project's benefits will be greater than the project's cost. Construction costs have increased substantially since 2007 and the DSEIS proposes massive new construction at the Deer Creek location that was not accounted for in the 2007 cost estimate; these changes have likely pushed the cost of construction to well over \$450 million. As the Corps acknowledged in 2007, the intended purpose of the Pumps is to expand industrial agribusiness on marginal lands, rather than deliver flood relief to communities (which 80 percent of project benefits attributed to agricultural intensification).
- The DSEIS does not include an Independent External Peer Review report, or any reference to one being conducted, despite the fact that such a review is required for this project as a matter of law. The DSEIS could have been improved had it incorporated and addressed the findings of an independent external peer review panel.

Conclusion

Our organizations call on the Corps to withdraw the deeply flawed DSEIS and permanently abandon efforts to resurrect the environmentally devastating, extremely costly, highly controversial, and long-vetoed Yazoo Pumps project. The Corps should instead turn its attention to environmentally sustainable natural infrastructure and non-structural solutions that will provide multiple, lasting benefits to Mississippi Delta communities while protecting and restoring the region's rich natural resources. Please contact Maisah Khan (mkhan@1mississippi.org) for any follow-up regarding this letter.

Sincerely,

Olivia Dorothy
Director, Upper Mississippi River
American Rivers

Thomas Anderson
Administrative Director
Amigos De Bolsa Chica

Georgia Ackerman
Riverkeeper
Apalachicola Riverkeeper

Derek Teaney
Deputy Director
Appalachian Mountain Advocates, Inc.

Jim Vogt
President
Aquashicola / Pohopoco Watershed
Conservancy

Samuel H. Sage
President
ASLF

Dean Wilson
Executive Director
Atchafalaya Basinkeeper

Dan Scheiman
Bird Conservation Director
Audubon Arkansas

Julie Wraithmell
VP and Executive Director
Audubon Florida

Brent Newman
Senior Policy Director
Audubon Louisiana

Jill Mastrototaro
Policy Director
Audubon Mississippi

Scott Moorhead
Policy Director
Audubon Texas

Jane Patterson
President
Baton Rouge Audubon Society

Charles Scribner
Executive Director
Black Warrior Riverkeeper

Anne Millbrooke
Designated Signer
Bozeman Birders

Bill Jennings
Executive Director
California Sportfishing Protection Alliance

Paulo Lopes
Public Lands Policy Specialist // Staff Attorney
Center for Biological Diversity

Trish Rolfe
Executive Director
Center for Environmental Law & Policy

Michael Mullen
Riverkeeper
Choctawhatchee Riverkeeper

John Koefen
President
Citizens Against Widening the Industrial Canal

Carin High
Co-Chair
Citizens Committee to Complete the Refuge

Cindy Zipt
Executive Director
Clean Ocean Action

Ken Dolsky
Co-founder
Coalition Against the Pilgrim Pipeline - NJ

Emily Vuxton
Policy Director
Coalition to Restore Coastal Louisiana

Clark Bullard
President
Committee on the Middle Fork Vermilion River

Brigid Lawlor
U. S. Provinces Advocacy Liaison
Congregation of Our Lady of Charity of the
Good Shepherd, U.S. Provinces

Mary Gutierrez
Director
Earth Action, Inc.

Stuart Gillespie
Staff Attorney
Earthjustice

Raquel Dominguez
Policy Associate
Earthworks

Tara Thornton
Deputy Director
Endangered Species Coalition

Doug O'Malley
Director
Environment New Jersey

Thomas Wheeler
Executive Director
Environmental Protection Information Center

Tom H. Logan
Chairman, FFI Board Conservation Committee
Fly Fishers International

Virginia McLean
President
Friends for Our Riverfront

Gloria Dedmon
President
Friends of Black Bayou

Bob Clarke
President
Friends of the Central Sands

Hallie Templeton
Senior Oceans Campaigner
Friends of the Earth

Trevor Russell
Water Program Director
Friends of the Mississippi River

Judith Stribling
Advocacy Coordinator
Friends of the Nanticoke River

Bill Tanger
Chair
Friends of the Rivers of Virginia (FORVA)

Yvonne Taylor
Vice President
Gas Free Seneca

Fred Akers
Administrator
Great Egg Harbor Watershed Association

Bruce Morrison
President
Great Rivers Environmental Law Center

David Stokes
Executive Director
Great Rivers Habitat Alliance

Kay Ahaus
Spokesperson
Greater Highland Area Concerned Citizens

Mariana Del Valle Prieto Cervantes
Clean Waters and Ocean Advocate
GreenLatinos

Theaux Le Gardeur
Riverkeeper and Executive Director
Gunpowder RIVERKEEPER

James M. Redwine
VP & COO
Harpeth Conservancy

Andrew Whitehurst
Water Program Director
Healthy Gulf

Edward Michael
Chair, Government Affairs
Illinois Council of Trout Unlimited

Ingrid Gronstal Anderson
Water Program Director
Iowa Environmental Council

Anna Gray
Public Policy Director
Iowa Natural Heritage Foundation

Jared Mott
Conservation Director
Izaak Walton League of America

Mary Stripling
Vice President
Jackson Audubon Society

Lane Boldman
Executive Director
Kentucky Conservation Committee

Tom FitzGerald
Director
Kentucky Resources Council, Inc.

Ward Wilson
Executive Director
Kentucky Waterways Alliance

Kimberly Baker
Executive Director
Klamath Forest Alliance

Sandy Bihn
Executive Director
Lake Erie Waterkeeper

Earl Hesley
Grand Riverkeeper
LEAD Agency, Inc.

Madeleine Foote
Deputy Legislative Director
League of Conservation Voters

Terese Grant
President
League of Women Voters of Iowa

Mary Ploeser
Co-Chair
League of Women Voters Upper Mississippi
Interleague Organization

Dr. Barry Kohl
President
Louisiana Audubon Council

Rebecca Triche
Executive Director
Louisiana Wildlife Federation

Darryl Malek-Wiley
CEO
M-W & Associates Environmental Policy

Toni Opt
Chair
Metro East Green Alliance (IL)

Cheryl Nenn
Riverkeeper
Milwaukee Riverkeeper

Abby Darrah
Chapter President
Mississippi Coast Audubon Society

Mary Hammes
Environmental Stewardship and Volunteer
Manager
Mississippi Park Connection

Albert Ettinger
Counsel
Mississippi River Collaborative

Dayna Stock
Interim Executive Director
Missouri Coalition for the Environment

John Rust
President
MN Division - Izaak Walton League of America

Trana Rogne
Steering Committee Chair
MnDak Upstream Coalition

Lawrence Couch
Director
National Advocacy Center of the Sisters of the
Good Shepherd

Brian Moore
Vice President, Gulf Policy
National Audubon Society

Gerald H. Meral
Director, California Water Program
Natural Heritage Institute

Kabir Green
Director of Federal Affairs
Natural Resources Defense Council

Melinda Hughes
President
Nature Abounds

Gregory A. Remaud
Baykeeper & CEO
NY/NJ Baykeeper

Michael Stocker
Director
Ocean Conservation Research

Jackie Antalan
Director of Outreach & Programs
Operation HomeCare

Jennifer Coulson, Ph.D.
President
Orleans Audubon Society

Annie Beaman
Director of Advocacy & Outreach
Our Children's Earth Foundation

Vivian Stockman
Executive Director
OVEC-Ohio Valley Environmental Coalition

Laurie Howard
Executive Director
Passaic River Coalition

Rev. Sandra L. Strauss
Director of Advocacy and Ecumenical Outreach
Pennsylvania Council of Churches

Larry Basden
President
Pine Woods Audubon Society

Louise Troutman
Executive Director
Pocono Heritage Land Trust

Ryan Grosso
Water Resources Associate
Prairie Rivers Network

Mark River Peoples
Head Guide & Vice President of Operations
Quapaw Canoe Company

Bob Musil
President & CEO
Rachel Carson Council

Eleanor Hines
North Sound Baykeeper, Lead Scientist
RE Sources

Ronald Catpo
Coordinator Rio Mapacho Waterkeeper
Rio Mapacho Waterkeeper

Renee Fortner
Watershed Resources Manager
RiverLink, Inc.

Diane Wilson
Executive Director
San Antonio Bay Estuarine Waterkeeper

William Lucey
Long Island Soundkeeper
Save The Sound

Stephen P. Kunz
Senior Ecologist
Schmid & Company, Consulting Ecologists

Susan Gatz, SCN
Committee Chair
SCN Ecological Sustainability Committee

Joseph Campbell
President
Seneca Lake Guardian, A Waterkeeper Alliance
Affiliate

Barbara McKasson
Group Conservation Chair
Shawnee Group Sierra Club

Dalal Aboulhoss
Deputy Director of Policy, Advocacy and Legal
Sierra Club

Louie Miller
State Director
Sierra Club Mississippi

Cindy Skrukrud
Clean Water Program Director
Sierra Club, Illinois Chapter

Joetta Venneman
Director, OSEI
Sisters of Charity of Nazareth Congregational
Leadership

Joetta Venneman
Director, OSEI
Sisters of Charity of Nazareth Western
Province Leadership

Chris Hesta
Executive Director
South Dakota Wildlife Federation

Charles Roe
President
Southern Conservation Partners, Inc.

Virginia Richard
Gulf Program Manager
SouthWings

Lisa Rinaman
Riverkeeper
St. Johns Riverkeeper

Michael Chojnicki
President
Sullivan Alliance for Sustainable Development

Kathy Hewes
Executive Director
Tennessee Clean Water Network

Shelby Ward
Director of Sustainable Tennessee
Tennessee Environmental Council

David Whiteside
Executive Director
Tennessee Riverkeeper

Janice Bezanson
Senior Policy Director
Texas Conservation Alliance

Paul Botts
President & Executive Director
The Wetlands Initiative

Richard McNutt
President
Tidewaters Gateway Partnership Inc.

Ashley Short
Riverkeeper & In-House Counsel
Tualatin Riverkeepers

Michael L. Atty
Executive Director
United Congregations of Metro East

John Blair
President
Valley Watch

David Groenfeldt
Director
Water-Culture Institute

Bart Mihailovich
Organizing Manager, U.S.
Waterkeeper Alliance

Robin Broder
Deputy Director
Waterkeepers Chesapeake

ENVIRONMENTAL JUSTICE HEALTH ALLIANCE FOR CHEMICAL POLICY REFORM
COMING CLEAN | CAMPAIGN FOR HEALTHIER SOLUTIONS

LIFE AT THE FENCELINE

Understanding Cumulative Health Hazards
in Environmental Justice Communities



LIFE AT THE FENCELINE

Understanding Cumulative Health Hazards
in Environmental Justice Communities



September 2018

ENVIRONMENTAL JUSTICE HEALTH ALLIANCE FOR CHEMICAL POLICY REFORM
COMING CLEAN | CAMPAIGN FOR HEALTHIER SOLUTIONS

Environmental Justice Health
Alliance for Chemical Policy Reform

coming clean

CAMPAIGN FOR
Healthier
Solutions

Author

Ronald White, Independent Consultant

Contributors

Denise Moore, Global Information Systems Analyst

Michele Roberts, Director of Outreach, Coming Clean, and Co-Coordinator, Environmental Justice Health Alliance for Chemical Policy Reform

Steven Taylor, Program Director, Coming Clean

Technical Reviewers

Robin Saha, PhD, Associate Professor of Environmental Studies, University of Montana

Demographic Analysis

Denise Moore, Global Information Systems Analyst

Maps

Jon Hradsky, MS, BA, Geographic Information Systems Specialist

Design

David Gematt, NonprofitDesign.com

The findings, conclusions, and recommendations in this report are those of the authors and sponsoring organizations and do not necessarily reflect the views and opinions of the contributors, reviewers, or funders. The authors and sponsors accept all responsibility for any errors or omissions in this work.

THIS REPORT WAS PRODUCED BY:

Coming Clean is a national environmental health and justice collaborative of 200 organizations working to reform the chemical and fossil fuels industries so they are no longer a source of harm, and to secure systemic changes that allow a safe chemical and clean energy economy to flourish. Learn more at www.comingcleaninc.org.

The Environmental Justice Health Alliance for Chemical Policy Reform supports diverse movement towards safe chemicals and clean energy that leaves no community or worker behind. EJHA is a network of grassroots environmental justice organizations in communities that are disproportionately impacted by toxic chemicals, from old contaminated sites, ongoing exposure to polluting facilities, and toxic chemicals in household products and foods. Learn more at www.ej-hall.org.

The Campaign for Healthier Solutions, hosted by Coming Clean and EJHA, is made up of interested organizations, dollar store customers, and investors who seek to work with discount retailers to help them protect their customers and the communities in which they operate, and also grow their business, by implementing corporate policies to identify and phase out harmful chemicals in the products they sell. Learn more at www.nontoxicdollarstores.org.

THE SPONSORING ORGANIZATIONS WOULD LIKE TO THANK THESE FUNDERS FOR THEIR GENEROUS SUPPORT OF WORK RELATED TO THIS REPORT:

Cedar Tree Foundation
Cornell Douglas Foundation
Fine Fund
Groundswell Fund, Catalyst Fund
The Irving Harris Foundation
John Merck Fund
Lucy R. Waletzky, MD
The New York Community Trust
The Overbrook Foundation
Park Foundation
Seventh Generation Foundation
Sills Family Foundation

TABLE OF CONTENTS

iv	Figures, Tables, and Boxes
1	Executive Summary
	CHAPTER ONE
6	Introduction
	CHAPTER TWO
15	Key Findings
	CHAPTER THREE
18	Results
18	National Context
19	Results for All Areas
22	Local Area Findings
22	Los Angeles, CA
24	Fresno County, CA
26	Kern County, CA
28	Madera County, CA
30	Louisville, KY
32	Albuquerque, NM
34	Dallas, TX
36	Houston, TX
38	Charleston, WV
	CHAPTER FOUR
40	Recommendations and Solutions
	APPENDIX A
44	Methodology
	APPENDIX B
46	Summary Data Table
	APPENDIX C
47	Local Organizations in Study Areas
	APPENDIX D
48	Glossary
	APPENDIX E
49	Online Resources
50	Endnotes



FIGURES, TABLES, AND BOXES

FIGURES

- 11 Figure 1 Sample Vulnerability Zone and Fenceline Zone
- 15 Figure 2 Increasing Hazards and Impacts
- 16 Figure 3 Population in Fenceline Zones
- 16 Figure 4 Schools in Fenceline Zones
- 16 Figure 5 Medical Facilities in Fenceline Zones
- 17 Figure 6 Race in Fenceline Zones
- 17 Figure 7 Poverty in Fenceline Zones
- 17 Figure 8 Cancer Risk from Air Pollution in Fenceline Zones
- 17 Figure 9 Respiratory Hazard in Fenceline Zones
- 18 Figure 10 US Residents in Fenceline Zones
- 18 Figure 11 US Schoolchildren in Fenceline Zones
- 18 Figure 12 US Medical Facilities in Fenceline Zones
- 18 Figure 13 US Dollar Stores in Fenceline Zones
- 19 Figure 14 Map of RMP Facilities in the United States

TABLES

- 10 Table 1 Top Five States with the Most RMP Facility Incidents Over Five Years
- 20 Table 2 Key Demographic and Health Risk Data for Study Areas
- 21 Table 3 RMP Facilities, Dollar Stores, Schools, and Medical Facilities in Study Areas

BOXES

- 11 Box 1 "Fenceline Zones" in This Report
- 13 Box 2 What is a "LILA" Area?

EXECUTIVE SUMMARY

Across the United States, the health and safety of people who live, work, play, and learn near thousands of industrial and commercial facilities that use or store extremely dangerous chemicals is at risk of a major chemical release or explosion at any time. Compared to national averages, a significantly greater proportion of Blacks (African Americans), Latinos (Hispanics), and people at or near poverty levels tend to live in close proximity to the most hazardous facilities. Compounding these risks, a large and growing body of research has found that people of color and those living in poverty are exposed to higher levels of environmental pollution than Whites or people not living in poverty.

Exposure to toxic air pollution and stress related to fear of potential chemical disasters increase the health burden on these communities. These hazards are amplified by other negative socioeconomic and health factors, including higher rates of diseases such as diabetes and asthma; lack of access to healthy foods; exposure to toxic chemicals in products sold at discount retail stores; substandard housing; and stress from racism, poverty, unemployment, and crime; among other factors. Addressing the cumulative impacts of these various environmental health risks and social determinants of health on these overburdened communities is the foundation of Environmental Justice (EJ).

The research reported here builds on many previous reports and studies, as well as a robust and expanding body of scientific and technical literature, on Environmental Justice and social determinants of health. We examined who is potentially impacted, and their health risks from multiple chemical hazards and toxic air pollution exposures, in the following areas: Los Angeles, as well as Kern, Fresno, and Madera counties, CA; Houston and Dallas, TX; Louisville, KY; Albuquerque, NM; and Charleston, WV.



Two-thirds of people in Louisville (pictured above) live near high-risk chemical facilities, a common situation in communities like those studied for this report.

We looked at several interconnected issues:

- Who lives in close proximity to the most hazardous industrial and commercial facilities (and is therefore at greatest risk from a major chemical release or explosion)?
- What are the cancer risks and the potential for respiratory illness from toxic air pollution exposure for those living in a “fenceline zone” within 3 miles of a hazardous facility?
- Do these communities have access to healthy foods?
- Where are critical institutions—schools, hospitals, and discount retail (“dollar”) stores—located in these fenceline areas?

OVERALL FINDINGS

The results of the analyses conducted for this report demonstrate that the health and safety of communities closest to some of the nation's most dangerous industrial and commercial facilities are at risk from multiple threats, including potential chemical releases or explosions, daily exposure to toxic air pollution, and poor nutrition from a lack of access to healthy foods (along with other hazards and impacts not specifically studied here). The population of these fenceline areas is disproportionately Black, Latino, and living in poverty. Many of these communities also rely heavily, or solely, on dollar stores for household necessities and in some cases food, making these retailers potential sources of either additional toxic exposures or safer products and healthier foods (depending on the corporate policies they implement or fail to adopt).

Analysis of the 9 areas studied for this report clearly shows that:

1. **In most of the areas researched, large majorities of the population live in fenceline zones around highly hazardous facilities, and most schools and medical institutions are located in these zones, at much greater rates than nationally.** In 7 of the 9 areas researched for this report, two-thirds of the population or more live in fenceline zones (much greater than the national rate of 39%). In most of the areas studied, at least two-thirds of all schools and 70% of medical facilities are located in fenceline zones (compared to 45% of US schools and 39% of US hospitals and nursing homes).
2. **Fenceline zones around hazardous facilities are disproportionately Black, Latino, and impoverished.** The percentage of Blacks or Latinos living within 3 miles of a Risk Management Plan (RMP) facility was higher than for the entire area in every study area, and often much higher than for the US as a whole. In 7 of the 9 areas researched, the percentage of people living in poverty within 3 miles of an RMP facility is higher than for those living in poverty in the entire area, and often much higher than for the US as a whole.
3. **People living in hazardous facility fenceline zones face multiple health hazards and risks.** In addition to the constant threat of catastrophic chemical releases or explosions, in every area researched for this report

fenceline zones face higher risk of cancer from toxic air pollution than the entire area (and often much higher than for the US as a whole). In 8 of the 9 areas, the potential for respiratory illness is higher in fenceline zones than for the entire area, and in every area is above the national rate. The percentage of fenceline zone residents who also live in a low-income/low food access area is higher than for the entire city or county in all 9 areas (and two to three times the national rate in most areas).

4. **The most vulnerable neighborhoods—areas that are both low-income and have low access to healthy foods—are even more heavily and disproportionately impacted.** In every area studied, low-income/low food access areas within fenceline zones have higher poverty rates, greater percentages of residents who are people of color, and higher cancer risk and respiratory hazard from toxic air pollution than for the whole fenceline zones or the entire city or county, often much higher.

In comparing data from the fenceline zone areas with the entire urban area or county, overall key findings for the 9 areas researched include:

- In 7 of the 9 areas, more than two-thirds of the population (over 67%) lives in a fenceline zone (within three miles of a facility that is part of the US Environmental Protection Agency's Risk Management Program for the most hazardous facilities), a much higher rate than the 39% of the US population that lives in such fenceline zones.
- In 7 of the 9 areas researched, the percentage of people living in poverty within 3 miles of an RMP facility is higher than for those living in poverty in the entire area (and in the other two areas the poverty rate is equal).
- In all of the communities studied, the percentage of people living in areas with Low Incomes and Low Access to healthy foods (LILA areas) within 3 miles of an RMP facility is higher than the percentage of residents of the entire community who live in low-income/low food access areas, and in some cases substantially higher.
- In 8 of the 9 areas studied, 71% to 100% of people who live in low-income areas that also have low access to healthy foods also live within a hazardous facility fenceline zone.



Members of Texas Environmental Justice Advocacy Services (tejas) and other organizations demand action to prevent chemical disasters at a federal Listening Session on chemical facility safety in Houston, TX.

IN 8 OF THE 9 AREAS STUDIED,

71% to 100% of people who live in low-income areas that also have low access to healthy foods also live within a hazardous facility fenceline zone.

- The percentage of Blacks or Latinos living within 3 miles of an RMP facility was higher than for the entire area in all of the study areas, and this difference rises significantly in areas with low incomes and low access to healthy foods within many fenceline zones.
- Cancer risks in fenceline zones are higher than for the entire area in all 9 areas studied, and the potential for suffering respiratory illness from exposure to toxic air pollution is higher in fenceline zones in 8 of the 9 areas. For people living in areas with low incomes and low access to healthy foods within fenceline zones, these risks increase further in all 9 areas studied.
- At least two-thirds of all schools are located within 3 miles of an RMP facility in 6 of the 9 areas.

- At least half of all medical facilities are located within 3 miles of an RMP facility in all but one area. At least 70% of medical facilities are located in these fenceline zones in 6 out of the 9 areas.

NATIONAL FINDINGS

- About 124 million people, 39% of the U.S. population, live within three miles of approximately 12,500 high-risk chemical facilities (those in the RMP program).
- Almost half (45%) of the approximately 125,000 schools in the US are located within 3 miles of RMP facilities. This puts more than 24 million children as well as staff at these schools at particular risk from a catastrophic chemical facility incident.
- About 4 in 10 (39%) of the almost 11,000 medical facilities (hospitals and nursing homes) in the US are near RMP facilities. A major chemical facility incident near these medical facilities could have catastrophic impacts on patients and staff.
- Almost one-half (about 13,000) of the almost 27,000 dollar stores owned by the largest US chains are located within three miles of an RMP facility. Toxic chemicals in products and unhealthy foods available at these stores add to the potential health impacts on fenceline communities.

KEY URBAN AREA OR COUNTY FINDINGS

Los Angeles, California

- More than 8.7 million people, or 72% of people in Los Angeles, live within 3 miles of the area's 141 RMP facilities, which is 85% higher than the national rate.
- In areas with low incomes and low access to healthy foods within the fenceline zones around RMP facilities, Latinos make up more than two-thirds of the population, which is 42% greater than the percentage of Latinos in Los Angeles. Also, the percentage of Blacks in areas with low incomes and low access to healthy foods within the 3-mile zones is 44% greater than for the LA area as a whole.

Fresno County, California

- Almost 637,000 people, or 68% of Fresno County residents, live within 3 miles of the 77 RMP facilities there, a 73% increase over the national rate.
- The percentage of Latinos in areas with low incomes and low access to healthy foods within fenceline zones is 23% greater than for Latinos in Fresno County overall.

Kern County, California

- Almost 581,000 people, or 68% of Kern county residents, live within 3 miles of the county's 97 RMP facilities, a 74% increase over the national rate.
- While Latinos represent just over 50% of the county's population, 65% of people living in areas with low incomes and with low access to healthy foods within the 3-mile fenceline zones are Latino, which is 29% higher than the full county.

Madera County, California

- 100% of people living in areas with low incomes and low access to healthy foods also live within 3 miles of an RMP facility, more than twice the percentage of Madera County residents who live within the fenceline zones (47%).
- The potential for suffering respiratory illness from toxic air pollution exposure is 33% higher for those living within 3 miles of an RMP facility compared to Madera County overall. Those in areas with low incomes and low access to healthy foods within the fenceline zones face a 24% higher cancer risk from air pollution, which is the highest risk of all 9 areas included in this report.

Louisville, Kentucky

- More than 600,000 people, or 67% of Louisville residents, live within 3 miles of the area's 23 RMP facilities, a 72% increase over the national rate. Ninety-two percent of people living in areas with low incomes and low access to healthy foods live within these fenceline zones, a 37% increase compared to all Louisville residents living within 3 miles of an RMP facility.
- The percentage of people living in poverty in areas with low incomes and low access to healthy foods within 3 miles of an RMP facility is 94% greater than for Louisville overall. The percentage of Blacks living in low-income/low food access areas within fenceline zones is twice that of Louisville as a whole (39% compared to 18%).

Albuquerque, New Mexico

- The potential for suffering respiratory problems from toxic air pollution exposure is 25% higher for those in areas with low incomes and low access to healthy foods within RMP facility fenceline zones compared to Albuquerque overall, while cancer risk from air pollution is 10% higher.
- The percentage of Latinos in areas with low incomes and low access to healthy foods within fenceline zones is 32% greater than for Albuquerque overall, and is more than twice the rate for whites in these areas.

Dallas, Texas

- Almost 3.5 million people, or 72% of Dallas residents, live within 3 miles of the area's 108 RMP facilities, an 85% increase over the national rate.
- While Latinos make up less than one-third Dallas's population, more than half of people in areas with low incomes and low access to healthy foods within the 3-mile fenceline zones are Latino, a 62% increase. The percentage of Latinos in these areas is more than twice the rate for whites.

Houston, Texas

- Almost 3.6 million people, or three-quarters of Houston residents, live within 3 miles of the 191 RMP facilities in the area, a 92% increase above the national rate.
- Seventy-eight percent of all Houston medical facilities and 72% of schools are within 3 miles of an RMP facility.

Charleston, West Virginia

- Seventy percent of people in Charleston live within 3 miles of an RMP facility, an 80% increase over the national rate.
- People living in Charleston face the highest cancer risk from toxic air pollutants of all 9 areas included in this report. Those risks increase further for those living within 3 miles of an RMP facility in areas with low incomes and with low access to healthy foods.

RECOMMENDATIONS AND SOLUTIONS

Ensure that facilities that use or store hazardous chemicals adopt safer chemicals and processes. Switching to inherently safer chemicals and technologies—which removes underlying hazards - is the most effective way to prevent deaths and injuries from chemical disasters (as well as eliminate ongoing emissions of the replaced chemicals).

Ensure that facilities share information on hazards and solutions, and emergency response plans, with fence-line communities and workers. Facility employees and fence-line communities can only participate effectively in their own protection if they have full access to information and meaningful access to decision-making processes. First responders must know what hazards they face.

Require large chemical facilities to continuously monitor, report and reduce their fence-line-area emissions and health hazards. Unplanned, smaller releases of toxic chemicals often precede more serious incidents at chemical facilities and may themselves directly impact the health of people living in nearby communities. Continuous, publicly available monitoring of air emissions will improve community knowledge of hazards and potentially help prevent minor issues from leading to major disasters.

Prevent the construction of new or expanded chemical facilities near homes and schools, and the siting of new homes and schools near facilities that use or store hazardous chemicals. The siting of new facilities that use or store hazardous chemicals, or expansion of existing ones, near homes, schools, or playgrounds significantly increases the possibility that a chemical release or explosion will result in a disaster. Similarly, new homes, schools, and playgrounds should not be sited near hazardous facilities.



Michele Roberts of Coming Clean and the Environmental Justice Health Alliance supports action to remove chemical hazards.

Require publicly accessible, formal health-impact assessments and mitigation plans to gauge the cumulative impact of hazardous chemical exposures on fence-line communities. Federal, state, and local agencies should assess, with full participation by the affected communities, the potential impact of unplanned chemical releases and the cumulative impacts of daily air-pollution exposures on the health of fence-line communities.

Strengthen the enforcement of existing environmental and workplace health and safety regulations. Congress should increase funding to the EPA, OSHA, and the states for expanding inspections and improving the enforcement of environmental and workplace health and safety laws, so that problems in chemical facilities can be identified before they lead to disasters.

Dollar store chains should develop and implement broad policies to identify and remove hazardous chemicals from the products they sell, stock fresh and healthy foods, and source safer products and foods locally and regionally. Given their presence in many communities of color and low-income fence-line communities, the largest dollar store chains are in a unique position to benefit the health and welfare of these communities where they operate, while growing and benefiting their own businesses, by providing safer products and healthier foods.

CHAPTER ONE INTRODUCTION

Across the United States, the health and safety of people who live, work, play, learn, and pray near thousands of industrial and commercial facilities that use or store extremely dangerous chemicals is at risk of a major chemical release or explosion at any time.

Approximately 124 million people across the United States, almost 40% of the US population, live within three miles of high-risk chemical facilities.¹ Their health, wellbeing, and even cultures are endangered by the threat of a catastrophic explosion or release, and other determinants of health, including lack of access to healthy foods, and daily exposure to toxic chemicals released into the air by industrial facilities, from everyday household products, and from building materials used to construct their homes.

Previous research found that these “fenceline” areas nearest hazardous facilities are often primarily composed of low-income people of color, especially Blacks (African Americans) and Latinos (Hispanics).^{2,3} Exposure to toxic air pollution⁴ and stress related to fear of potential chemical plant disasters

increase the health burden on these Environmental Justice (EJ) communities. These hazards are amplified by other negative socioeconomic and health factors, including higher rates of diseases such as diabetes and asthma, substandard housing, stress from racism, poverty, unemployment, and crime, among other factors.³

Adding to the health burden for these communities are harmful chemicals in foods and household products often found in discount retailers (“dollar stores”)⁶ and lack of access to healthier foods.⁷ Dollar stores are often located in small rural towns or in urban neighborhoods where they might be the only place to buy essential household items, including food. For example, Family Dollar has specifically targeted areas where they may be the only store selling food.⁸ Many communities served by dollar stores are predominantly communities of color or low-income communities that have reduced access to quality medical care, fresh and healthy food, and public services, which are critical to overall health and to withstanding chemical exposures. Because of their presence in so many fenceline communities, dollar stores are in a unique position to either contribute to the health burden faced by these

What is Environmental Justice?

Environmental Justice—as both a principle and a movement—arose in response to disproportionate exposure of communities of color and low-income communities (referred to as Environmental Justice communities) to harmful pollution, toxic sites and facilities, and other health and environmental hazards. While these people and communities have known about the hazards they face for a long time, beginning in the early 1980s new research helped document these harms and support action to address them. Grassroots leaders in many EJ communities began organizing and networking to address disproportionate toxic impacts wherever people live, work, play, learn, or worship. In 1991, the First National People

of Color Environmental Leadership Summit adopted 17 Principles of Environmental Justice. Over the past 40 years, EJ organizing has led to President Clinton’s Executive Order on Environmental Justice, to the establishment of EPA’s Office of Environmental Justice and National Environmental Justice Advisory Council, to the adoption of some form of EJ policies in many states, and to concrete actions to protect EJ communities from environmental health hazards. However, disproportionate toxic threats are still a daily fact of life in communities of color, low-income communities, and Indigenous communities across the United States, which Environmental Justice organizations work to address.



Residents of Wilmington, DE are campaigning for solutions to toxic air pollution and high-risk chemical facilities in their community.

communities, or help to provide solutions (by stocking healthier foods and safer products).⁸

This report builds on a substantial body of previous Environmental Justice research. From its beginning, the Environmental Justice movement has worked to assess and address cumulative health, environmental, and social impacts⁹ that disproportionately impact communities of color, low-income communities, and Indigenous communities. For more than twenty-five years, Environmental Justice researchers and organizers have documented disproportionate impacts and advocated for changes to address these inequities. Many reports and articles document their results and successes.^{10,11,12,13,14}

In response to Environmental Justice organizing, in 1994 President Bill Clinton issued Executive Order 12898 on Environmental Justice ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations") which directed each federal agency

to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations...".¹⁵

The EJ Executive Order continues to inform federal policy making and enforcement over twenty years later, despite attempts by the Administration of George W. Bush to remove race from consideration in US Environmental Protection Agency (EPA) environmental justice determinations.¹⁶ EPA now defines Environmental Justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."¹⁷ However, the Agency also clarifies that "no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial operations or policies."¹⁸

⁸ Throughout this report, "dollar stores" refers generally to discount retail stores, which are primarily those operated by the largest US discount retail chains (Dollar General and Dollar Tree, which also owns Family Dollar), and is not meant to indicate any one specific company. Any direct references to specific companies or their stores list the company by name.

EPA's current Environmental Justice Strategic Plan (EJ 2020 Action Agenda) recognizes disproportionate impacts on communities of color, low-income communities, and Indigenous communities, and commits the Agency to "achieving better environmental outcomes and reducing disparities in the nation's most overburdened communities."¹⁹

EJHA'S EFFORTS TO PREVENT chemical disasters unite communities at the fenceline of hazardous chemical facilities with facility employees, supported by national advocates and experts. Key prevention measures include disclosure of information on hazards and alternatives, community and worker involvement, and transition to safer chemicals and processes.

Responding to the urgent need for action to address the numerous hazards and harms that disproportionately affect people of color and low-income people, the Environmental Justice Health Alliance for Chemical Policy Reform (EJHA) has networked community organizations across the United States to organize and campaign for solutions. EJHA works to address the multiple harms caused by the hazardous chemical and energy industries—including waste, pollution, and health hazards—that disproportionately target and impact communities of color, Indigenous communities, and low-income communities. These communities along the "fenceline" of industry are exposed to multiple hazards at high rates, and have the least resources to influence and respond.

EJHA's efforts to prevent chemical disasters unite communities at the fenceline of hazardous chemical facilities with facility employees, supported by national advocates and experts. Key prevention measures include disclosure of information on hazards and alternatives, community and worker involvement, and transition to safer chemicals and processes. As the EJ movement has demonstrated, and EJHA agrees, these solutions can also help to mitigate the worsening climate crisis (which also disproportionately affects already overburdened communities).

EJHA's Campaign for Healthier Solutions (CHS) encourages discount retailers (dollar stores) to protect their customers, workers, and the communities in which they operate, and grow their businesses, through corporate policies to identify and phase out harmful chemical substances in the products they sell (which are often produced in countries such as China, and then transported to the US). The campaign asks dollar stores to stock safer products and healthier foods, especially when these can be sourced from local farms, community businesses, or cooperatives, in order to support the communities where their stores operate.

The research reported here builds on many previous reports and studies, as well as a robust and expanding body of scientific and technical literature on Environmental Justice and social determinants of health, including the 2014 EJHA report *Who's in Danger? Race, Poverty, and Chemical Disasters*. We examined the following areas: Los Angeles, as well as Kern, Fresno, and Madera counties, CA; Houston, TX; Dallas, TX; Louisville, KY; Albuquerque, NM; Charleston, WV. The areas selected for inclusion in this report have community-based advocacy efforts underway to address the large numbers of industrial and commercial facilities with hazardous chemicals, high environmental pollution levels, as well as the large numbers of dollar stores and lack of access to healthy foods in their communities.

In order to understand who is potentially impacted and the health risks from the multiple hazards and exposures in these communities, we looked at several interconnected issues:

- Who lives in close proximity to the most hazardous facilities? Specifically, what is the demographic profile of people living within 3 miles of high-risk chemical facilities included in the EPA Risk Management Plan (RMP) program?
- What are the cancer risks and the potential for respiratory illness from toxic air pollution exposure for those living within these 3-mile fenceline areas?
- Do these communities have access to healthy foods? What is the demographic profile of those living in areas within these fenceline zones that are considered low income and with low access to healthy foods?
- Where are critical institutions (schools, hospitals, and dollar stores) located within the fenceline areas in these communities?

Although the analysis for this report did not look specifically at the age or condition of housing in these communities,

previous research has extensively documented that many communities of color and low-income communities suffer from a lack of access to safe and quality housing, which in turn negatively impacts health. According to the US Surgeon General, "Many of the disparities in health status among subpopulations may be linked to poor access to safe and healthy homes, which is most prevalent among lower income populations, populations with disabilities, and minority populations."²⁰

Not only are "blacks and low-income people . . . more likely than the general population to be in housing that has extreme physical problems,"²¹ it is also true that "low-income people and African Americans are much more likely to be exposed to, and therefore suffer, the effects of poor indoor air quality than the general population."²² Indoor toxic exposures may include chemicals such as formaldehyde or volatile organic compounds released from building materials; lead released from paint, water pipes, or other sources; and chemicals released from furniture and everyday household or consumer products.²³

We encourage additional research into the multiple hazards and stressors that affect communities near the fence line of hazardous facilities, and environmental justice communities in general, including the availability, quality, and safety of housing.

FENCELINE COMMUNITIES FACE MULTIPLE ENVIRONMENTAL HAZARDS AND HEALTH RISKS

Hazardous Chemical Facilities

Hazardous chemical releases from industrial and commercial facilities into surrounding communities are all too common. The EPA's Risk Management Plan program (RMP) covers about 12,500 of the nation's most high-risk facilities that produce, use, or store significant amounts of certain highly toxic or flammable chemicals. These facilities must prepare plans for responding to a worst-case incident such as a major fire or explosion that releases a toxic chemical into the surrounding community. The chemical disaster zones for these facilities often extend up to 25 miles or more and include hundreds of thousands of people, hundreds of schools, many hospitals, and thousands of small and large businesses. Collectively, these facilities endanger as many as 177 million people.²⁴

The EPA estimates that about 150 "reportable" incidents of unplanned chemical releases (separate from the daily toxic emissions that are allowed under most operating permits) occur each year at RMP facilities. The EPA notes that these incidents "pose a risk to neighboring communities and workers because they result in fatalities, injuries, significant property damage, evacuations, sheltering in place, or environmental damage."²⁵ EPA records show that from



Members of Rubbertown Emergency ACTION (REACT) work to stop toxic air pollution in Louisville.

TABLE 1
Top Five States with the Most RMP Facility Incidents Over Five Years

State	RMP Facilities	Incidents	Injuries	Evacuated	Property Damage
Texas	1,457	178	185	12,277	\$644,367,042
Louisiana	327	118	222	9,706	\$216,709,465
California	863	75	15,098	75,526	\$9,081,573
Illinois	918	58	46	173	\$5,354,288
Oklahoma	304	57	20	54	\$36,270,405

Over 1 in 10 RMP facilities in the US are located in Texas. Over five years, Louisiana had 1 reported chemical incident for every three RMP facilities in the state.

Source: RTMNET. RMP facilities and accidents by state, compiled from data last released on January 21, 2017 obtained from EPA's Risk Management System database. <http://www.rtm.net/rmp/facilities.php?tabtype=1&subtype=all&sorttype=inc>, search done on May 16, 2018.

2004-2013 there were more than 1,500 chemical releases reportable under the RMP program, about 500 of which had off-site impacts (or about one release with off-site impacts every week). These incidents caused nearly 60 deaths, 17,000 injuries and requests for medical treatment, almost 500,000 people evacuated or sheltered-in-place, and more than \$2 billion in property damages, even though the decade studied did not include a truly catastrophic incident.²⁶ Chemical releases can also seriously disrupt local economies and cause severe economic damage. The Freedom Industries toxic spill into the Elk River near Charleston, WV, in January 2014 cost local businesses and the local economy \$19 million a day.²⁷

In January 2017, the EPA adopted revisions to its chemical facility safety (RMP) rule that could prevent disasters and improve the ability of communities to prepare for—and respond to—incidents at these dangerous facilities.²⁸ However, implementation of the revised RMP rule was placed on hold by the Trump Administration EPA, which delayed the rule's implementation until February 19, 2019²⁹ and on May 17, 2018 proposed to roll back almost all of these modest safety improvements.³⁰

People living nearest to these high-risk chemical facilities (known as the fenceline areas or zones), and the businesses, schools, and hospitals in these areas, are especially at risk from disasters. They are at greatest risk of immediate death or injury, are likely to be exposed to the highest level of toxic chemicals released, and have the least amount of time to evacuate or otherwise protect themselves. In 2012, a major explosion at the Chevron oil refinery in Richmond, California resulted in over 15,000 residents seeking medical attention over the next several weeks, including 20 people who were hospitalized.³¹ According to the US Chemical Safety Board, a major release of highly toxic

PEOPLE LIVING NEAREST TO these high-risk chemical facilities (known as the fenceline areas or zones), and the businesses, schools, and hospitals in these areas, are especially at risk from disasters.

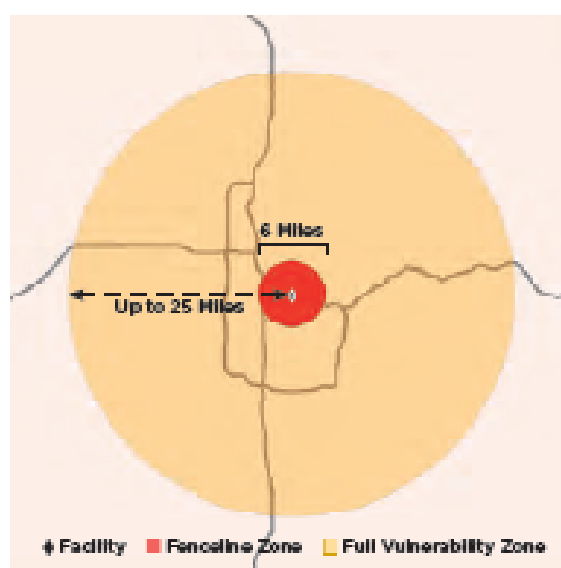
hydrogen fluoride gas into the densely populated community of Torrance, CA following an explosion at the Chevron refinery there in 2015 was only avoided by chance.³²

Several reports and studies have documented the disproportionate representation of low-income populations and people of color in fenceline communities around hazardous facilities. A 2001 study of chemical facilities in Florida found that a significantly large proportion of both non-White and impoverished individuals resided in areas potentially exposed to multiple accidental releases.³³ A 2004 study found that larger, more chemical-intensive facilities tend to be located in counties with larger Black populations and in counties with high levels of income inequality. It also found a greater risk of incidents at facilities in heavily Black counties.³⁴

More recently, a 2014 report from the Environmental Justice Health Alliance examined the demographics of the populations in fenceline zones around 3,433 of the most hazardous RMP facilities. The report, *Who's in Danger?*, found that the percentage of Blacks in the fenceline zones around those facilities is 75% greater than for the US as a whole, while the percentage of Latinos in the fenceline zones is 60% greater than for the US as a whole. Additionally, the poverty rate in these zones is 50% higher

than for the US as a whole.³⁵ A 2016 report from the Center for Effective Government found that people of color are almost twice as likely as Whites to live within one mile of RMP facilities, with poor Black and Latino children more than twice as likely to live in these areas compared to white children who are living above the poverty line. The report also found that chemical facilities in communities of color have almost twice the rate of incidents compared to those in predominately white neighborhoods.³⁶

FIGURE 1
Sample Vulnerability Zone and Fenceline Zone



BOX 1
"Fenceline Zones" in This Report

In this report, "fenceline zone" refers to areas within 3 miles of a facility included in the EPA's Risk Management Plan (RMP) program. The full chemical disaster vulnerability zones for these facilities extend up to 25 miles. The vulnerability zones are calculated by the companies themselves as part of worst-case chemical release scenario analysis required under the RMP program. The scenarios are projections that the chemical facilities report to the EPA, and include the maximum area of potential serious harm from a worst-case release of chemicals. The people living or working closest to these hazardous facilities, and the institutions like schools and hospitals nearest to them, are at the greatest risk from a chemical release or explosion and have the least ability to quickly respond or evacuate.

Toxic Air Pollution

A large and expanding body of scientific literature has documented the disproportionate exposure of people of color, and particularly poor people of color, to high levels of toxic air pollution and resulting health impacts. A 2006 study found that cancer risks associated with toxic air pollution were highest in Census tracts located in 309 highly segregated metropolitan areas. Disparities in cancer risks between racial/ethnic groups were also wider in more segregated metropolitan areas.³⁷ A recent national study found that air pollution from industrial facilities is likely to disproportionately impact low-income and nonwhite communities, and that these disproportionalities become even greater when considering the smaller group of facilities that generate the majority of air pollution exposure risk ("the worst-of-the worst").³⁸ Other studies have documented disproportionate cancer risks for low-income people of color from exposure to toxic air pollution in Baltimore,³⁹ Southern California,⁴⁰ and Houston,⁴¹ among other locations. The higher air pollution exposure in EJ communities compounds the impact of the disproportionate underlying health status in these communities. For example, in the case of asthma, older Blacks are almost three times more likely than whites to die from asthma-related causes, and Black children die from asthma at eight times the rate of white children.⁴²

While most studies have separately examined the demographics of fenceline communities at risk of chemical disasters or from daily toxic air pollution exposure, two recent studies focused on Houston looked at both of these hazards together. A 2014 study found that Houston neighborhoods with a higher percentage of Hispanic residents, lower percentage of homeowners, and higher income inequality face significantly greater exposure to both chronic and acute pollution risks.⁴³ A 2016 report from the Union of Concerned Scientists and the Texas Environmental Justice Advocacy Services (T.E.J.A.S.) found that a substantially larger percentage of people located within one mile of RMP facilities in two predominantly low-income Latino east Houston neighborhoods face higher cancer risks and potential respiratory illness when compared to two predominantly White and wealthier west Houston communities.⁴⁴

Toxic Chemicals in Household Products

Extensive research over several decades (including testing of consumer and household products, household dust, indoor air, and testing of human blood, urine, and hair

samples) has proven that many chemicals used in everyday consumer products, household products such as furniture, building materials, cosmetics and personal care products, and even food packaging are released into homes and absorbed, ingested, or inhaled by people. Scientific studies have linked many of these chemicals to serious health problems, including cancer, learning disabilities and other neurodevelopmental issues, obesity, reproductive health effects, and more. Increasing pressure from consumers, communities, scientists, medical professionals, and businesses has led many states, the federal government, and even large retail companies like Walmart and Target to take concrete actions to identify and remove hazardous chemicals from everyday products.⁴⁵

Most families buy consumer and household products, including food, from local retail stores. Almost 27,000 discount retail stores (“dollar stores”)⁴⁶ across the United States belonging to the major dollar store chains (the giants Dollar General and Dollar Tree/Family Dollar, and smaller chains like 99 Cents Only) often serve as the primary, or only, source of household products and food for many low-income communities. Many communities served by dollar stores are predominantly communities of color or low-income communities that are already



Residents of Albuquerque (pictured above) and many other fence-line communities depend on dollar stores for household products and food.

INCREASING PRESSURE FROM

consumers, communities, scientists, medical professionals, and businesses has led many states, the federal government, and even large retail companies like Walmart and Target to take concrete actions to identify and remove hazardous chemicals from everyday products.

disproportionately exposed to chemical hazards, health effects linked to environmental pollution exposures, and substandard or hazardous housing conditions. As noted earlier, we looked at the presence of dollar stores in fence-line zones near high-risk facilities along with other data to better understand the range of hazards, health determinants, and possible solutions faced by these “hot spot” communities.

While retail competitors like Walmart⁴⁷ and Target⁴⁸ have adopted comprehensive policies to know, disclose, and address many chemicals of concern throughout their supply chains, the major dollar store chains have until recently lagged behind in their efforts to address toxic chemicals in the products they sell. Although the largest dollar store chains have taken some limited steps to address some toxic chemicals in their products mostly in response to federal and state requirements, analyses of a sample of products from these stores found high levels of toxic chemicals in many products. A 2012 report found that 39% of vinyl packaging sold by discount retailers contained levels of cadmium or lead that violate state laws.⁴⁹ The 2015 Campaign for Healthier Solutions report *A Day Late and a Dollar Short* found that 81% of the dollar store products tested contained at least one hazardous chemical above levels of concern, compared to established standards based on a sample of 164 products purchased from the major chains. At least 71% of the products tested from each dollar store chain contained one or more hazardous chemicals above levels of concern.⁵⁰

In June 2017, Dollar Tree disclosed that the company had notified suppliers of its intent to eliminate seventeen hazardous chemicals from the products it stocks by 2020, including several chemicals not currently restricted by the federal or state governments. This action by Dollar Tree is

an important first step by a national discount retail chain, and we encourage other chains to adopt similar actions. Dollar Tree also needs to make its action more fully transparent to customers and shareholders by disclosing the letters it has sent to suppliers, and by publicly reporting on progress toward its goals.

Lack of Access to Healthy Foods

Dollar stores are often the only source of food in many low-income communities, including both urban and rural areas. A lack of supermarkets in these communities, and the typically limited availability of healthy foods offered in discount retail stores, result in restricted access to healthy foods.⁸ Nationally, an estimated 52.5 million people, or 17% of the US population, have low access to a supermarket.³¹ A review of studies of neighborhood differences in access to food found that residents of neighborhoods who have better access to supermarkets and limited access to convenience stores tend to have healthier diets and lower levels of obesity, and that residents of low-income, minority, and rural neighborhoods are most often affected by poor access to supermarkets and healthful foods.^{32,33} Conversely, a lack of access to healthy foods has been linked to higher levels of obesity³⁴ as well as hypertension and diabetes³⁵ and cancer.³⁶ Nationally, the occurrence of diabetes in Hispanic and Black people is 66% and 77% higher, respectively, compared to non-Hispanic Whites,³⁷ while obesity rates for Blacks and Hispanics are 47% and 30% higher.³⁸

Research has found that communities comprised of low-income residents and people of color often lack access to the healthier foods available in supermarkets. A study of 28,000 US ZIP codes found that ZIP codes representing low-income areas had only 75% as many chain supermarkets available as ZIP codes representing middle-income areas. The availability of chain supermarkets in predominantly Black neighborhoods was found to be roughly one-half that in their counterpart white neighborhoods, with even less relative availability in urban areas. ZIP codes with higher proportions of Hispanic residents had only 32% as many chain supermarkets available as primarily non-Hispanic neighborhoods.³⁹ A review of studies on neighborhood disparities in access to fast-food outlets and convenience stores found that low-income neighborhoods offered greater access to those food sources that promote unhealthy eating.⁴⁰

Ironically, agricultural workers may not only live in fence-line zones near hazardous facilities, and be exposed to toxic air pollution where they live as well as to hazardous pesticides on the job,⁴¹ but also have low access to healthy foods, even though they work to plant or harvest fresh produce as farmworkers. For example, in the three central California counties studied in this report (which are heavily agricultural counties that contain many farms and large populations of agricultural workers), the percentage of low-income Latinos who live within 3 miles of a hazardous chemical facility and also have low access to healthy foods was 23% to 33% higher than the percentage of Latinos in the county as a whole.

What We Studied

The analysis conducted for this study examined the demographics of the populations, as well as locations of schools, medical facilities (hospitals and nursing homes), and dollar stores, in 9 metropolitan areas or counties potentially impacted by a toxic chemical release due to their close proximity to many hazardous chemical

BOX 2 What is a "LILA" Area?

Access to healthy foods is a critical factor for individual, family, and community health. The US Department of Agriculture's (USDA) Economic Research Service notes that "limited access to supermarkets, supercenters, grocery stores, or other sources of healthy and affordable food may make it harder for some Americans to eat a healthy diet." USDA defines Low Access to healthy food as "being far from a supermarket, supercenter, or large grocery store."

Income is also an important factor in family and community health and wellbeing. The US Department of Treasury defines Low-Income areas as those with poverty rates of 20% or greater, or that meet other criteria.

Some communities have Low Access to healthy foods and are also Low Income. These Low-Access and Low-Income areas are called LILA areas. More background on LILA areas can be found at <https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation>.

⁸ We used a US Department of Agriculture definition of "lack of access to healthy foods," which is not living within 1/2 mile of a supermarket in urban areas, or within 10 miles of a supermarket in a rural area.

RECOGNIZING THAT CHILDREN

and those in medical facilities would be especially vulnerable during a chemical release or explosion nearby, and are especially vulnerable to toxic exposures, we assessed the number of schools and medical facilities within 3 miles of an RMP facility in these communities.

facilities. We also assessed the additional health risks from toxic air pollution as well the demographic profile of the fence-line zones around hazardous facilities, and also in areas within fence-line zones that are considered Low Income and with Low Access to healthy foods (known as LILA areas).

Analysis of the data from the six urban areas and the three counties included in this report focused primarily on the demographics of people living within 3 miles of high-risk chemical facilities (i.e., fence-line areas). To assess additional health risks in these fence-line communities, we examined the cancer risks and respiratory hazards from toxic air pollution, dollar store locations for potential exposure to toxic chemicals from products (and as potential sources of safer products and healthy foods), as well as low access to healthy foods for those in low-income areas. Recognizing that children and those in medical facilities would be especially vulnerable during a chemical release or explosion nearby, and are especially vulnerable to toxic exposures, we assessed the number of schools and medical facilities within 3 miles of an RMP facility in these communities.

To assess the cancer risks and potential respiratory hazards from residents' exposure to toxic air pollution in the 9 areas, we used data from the EPA's National Air Toxics Assessment (NATA). The NATA was developed primarily as a tool to inform both national and more localized efforts to collect air toxics information and characterize emissions (e.g., to prioritize pollutants or geographical areas of interest for more refined data collection such as monitoring). The 2011 NATA data, the most recent available, include data for 140 toxic air pollutants from a broad spectrum

of sources including large industrial facilities, such as refineries and power plants, and smaller sources, such as gas stations, oil and gas wells, and chrome-plating operations. Other pollution sources include cars, trucks, and off-road sources such as construction equipment and trains, as well as pollution formed by chemical reactions in the atmosphere.

The EPA calculates the amount of air pollution faced by people at the census-tract level and then uses health benchmarks to estimate cancer risks and respiratory health hazards from the combined effect of those exposures. Cancer risks are expressed as the projected number of cancers per million people based on a 70-year lifetime of exposure. The national average cancer risk is 40 cancers per million people, based on the 2011 data. By comparison, when the EPA sets pollution control limits for individual toxic air pollutants under the Clean Air Act, the lifetime cancer risk target for the general population is one additional cancer per million people.

The Respiratory Hazard Index (RHI) represents the ratio of pollutant levels compared to EPA benchmarks established as not likely to cause non-cancer respiratory illnesses based on a lifetime of exposure. An index value greater than 1 indicates the potential for adverse health impacts, with increasing concern for suffering respiratory health effects as the value increases.

The cancer risk and respiratory hazard values are based on numerous modeled data and therefore should be viewed as estimates of average population risks and hazards rather than exact risk numbers for a particular person. Although NATA estimates cancer risks and non-cancer hazards for numerous toxic air pollutants, additional chemicals might exist that are not identified or for which data on these health impacts are unavailable. Therefore, these risk and hazard estimates represent only a subset of the total potential cancer and non-cancer risks associated with air toxics exposures. These risk estimates also do not consider ingestion or the breathing of indoor sources of air toxics as an additional exposure pathway. In other words, the actual cancer risk and respiratory hazard from toxic pollution faced by people living in the areas we researched is almost certainly greater than these limited data show.

A full description of data sources and methodology can be found in Appendix A.

CHAPTER TWO KEY FINDINGS

The results of the analyses conducted for this report demonstrate that the health and safety of communities closest to some of the nation's most dangerous industrial and commercial facilities are at risk from multiple threats, including potential chemical releases or explosions, daily exposure to toxic air pollution, and poor nutrition from a lack of access to healthy foods (along with other hazards and impacts not specifically studied here). The population of these fence-line areas is disproportionately Black, Latino, and living in poverty. Many of these communities also rely heavily, or solely, on dollar stores for household necessities and in some cases food, making these retailers potential sources of either additional toxic exposures or safer products and healthier foods (depending on the corporate policies they implement or fail to adopt).

Analysis of the 9 areas studied for this report clearly shows that:

1. In most of the areas researched, large majorities of the population live in fence-line zones around highly

hazardous facilities, and most schools and medical institutions are located in these zones, at much greater rates than nationally. In seven of the nine areas researched for this report, two-thirds of the population or more live in fence-line zones (much greater than the national rate of 39%). In most of the areas studied, two-thirds of all schools and 70% of medical facilities are located in fence-line zones (compared to 45% of US schools and 39% of US hospitals and nursing homes).

2. Fence-line zones around hazardous facilities are disproportionately Black, Latino, and impoverished. The percentage of Blacks or Latinos living within 3 miles of an RMP facility was higher than for the entire area in every study area, and often much higher than for the US as a whole. In 7 of the 9 areas researched, the percentage of people living in poverty within 3 miles of an RMP facility is higher than for those living in poverty in the entire area, and often much higher than for the US as a whole.
3. People living in hazardous facility fence-line zones face multiple health hazards and risks. In addition

FIGURE 2
Increasing Hazards and Impacts

Our research found that hazards and impacts become more severe and more disproportionate when moving from the whole US to the nine cities or counties studied, to the fence-line zones and low-income/low food access areas within those cities or counties, and especially to LILA areas (low-income areas with low access to healthy foods) within fence-line zones.

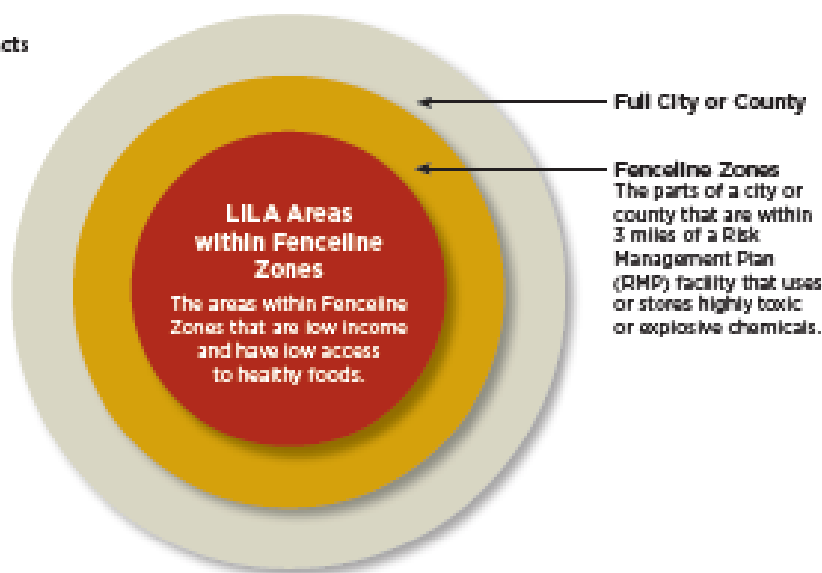
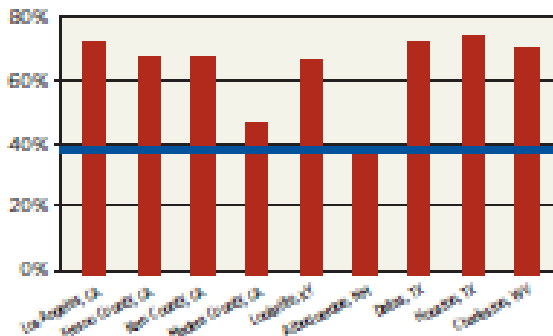
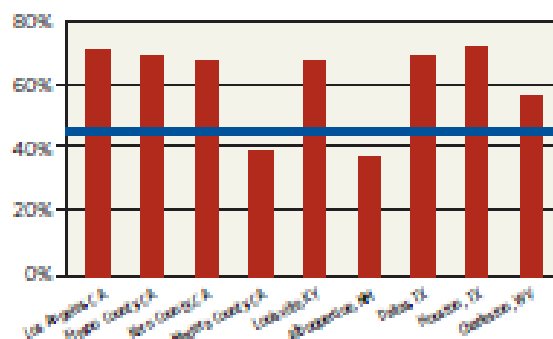


FIGURE 3
Population in Fenceline Zones



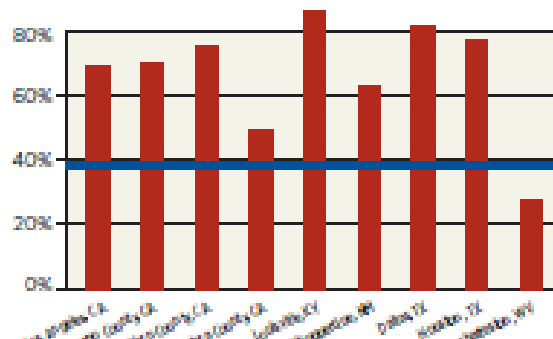
In 7 of the 9 areas researched for this report, two-thirds of the population or more live in fenceline zones near hazardous facilities (much greater than the national rate of 39%, marked by the blue horizontal line).

FIGURE 4
Schools in Fenceline Zones



In 8 of the 9 areas studied, at least two-thirds of all schools are located within 3 miles of a hazardous RMP facility (much greater than the national rate of 45%, marked by the blue horizontal line).

FIGURE 5
Medical Facilities in Fenceline Zones



In 8 of the 9 areas studied, at least 70% of hospitals and nursing homes are located in fenceline zones (much greater than the national rate of 39%, marked by the blue horizontal line).

* The US Department of Health and Human Services defines "low income" as incomes less than twice that of the national poverty income guideline (e.g., \$49,200 for a family of 4). Source: <https://aspe.hhs.gov/poverty-guidelines>.

to the constant threat of catastrophic chemical releases or explosions, in every area researched for this report fenceline zones face higher risk of cancer from toxic air pollution than the entire area (and often much higher than for the US as a whole). In 8 of the 9 areas, the potential for respiratory illness is higher in fenceline zones than for the entire area, and in every area is above the national rate. The percentage of fenceline zone residents who also live in a low-income/low food access area is higher than for the entire city or county in all 9 areas (and two to three times the national rate in most areas).

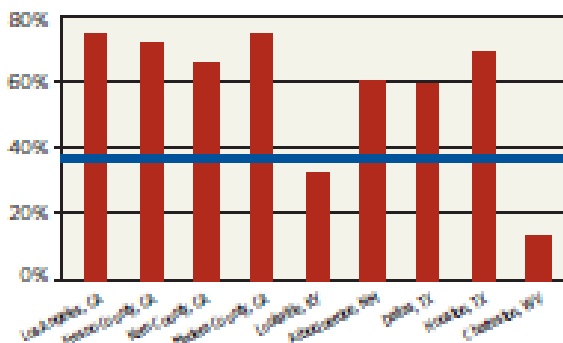
- The most vulnerable neighborhoods—areas that are both low income and have low access to healthy foods—are even more heavily and disproportionately impacted. In every area studied, low-income/low food access areas within fenceline zones have higher poverty rates, greater percentages of residents who are people of color, and higher cancer risk and respiratory hazard rates from toxic air pollution than for the whole fenceline zones or the entire city or county, often much higher.

In comparing data from the fenceline zones with the entire urban area or county, key findings include:

- In 7 of the 9 areas we researched, more than two-thirds of the population (over 67%) lives in a fenceline zone within 3 miles of a facility that is part of the EPA's Risk Management Program (RMP), and sometimes in more than one such zone. Nationally, 39% of the US population lives within 3 miles of an RMP facility.
- In 7 of the 9 areas researched, the percentage of people living in poverty within 3 miles of an RMP facility is higher than for those living in poverty in the entire area (and in the other two areas the poverty rate is equal).
- In all of the communities studied, the percentage of people living in areas with Low Incomes* and Low Access to healthy foods (known as LILA areas) within 3 miles of an RMP facility is higher than the percentage of residents of the entire community who live in low-income/low food access areas, and in some cases substantially higher.
- In 8 of the 9 areas studied, 71% to 100% of people who live in low-income areas that also have low access to healthy foods also live within a hazardous facility fenceline zone.

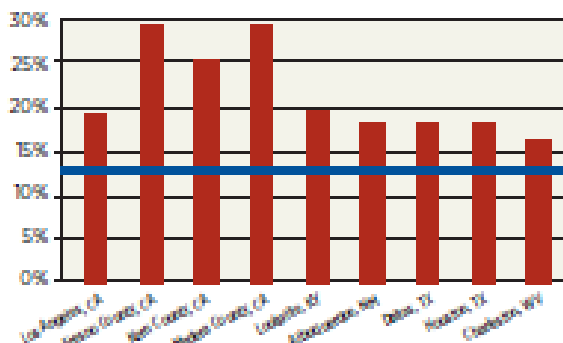
- The percentage of Blacks or Latinos living within 3 miles of an RMP facility was higher than for the entire area in all of the study areas, and this difference rises significantly in areas with low incomes and low access to healthy foods within many fenceline zones.
- Cancer risks in fenceline zones are higher than for the entire area in all 9 areas, and the potential for suffering respiratory illness from exposure to toxic air pollution is higher in fenceline zones in 8 of the 9 areas. For people living in areas with low incomes and low access to healthy foods within fenceline zones, these risks increase in all 9 areas.
- At least two-thirds of all schools are located within 3 miles of an RMP facility in 6 of the 9 areas (compared to 45% nationally).

FIGURE 6
Race in Fenceline Zones



In 7 of the 9 areas studied, the percentage of fenceline zone residents who are people of color is much higher than the percentage of people of color in the whole US population.

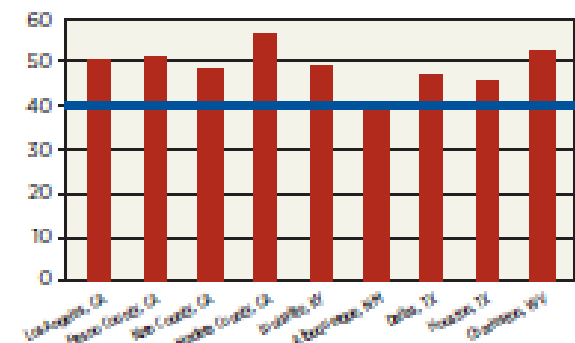
FIGURE 7
Poverty in Fenceline Zones



The poverty rate within fenceline zones in all nine of the cities or counties we studied is higher than the national rate of 13.5% (marked by the horizontal blue line). In 7 of the 9 areas researched, the percentage of people living in poverty within 3 miles of an RMP facility is higher than for those living in poverty in the entire area, and often much higher than for the US as a whole.

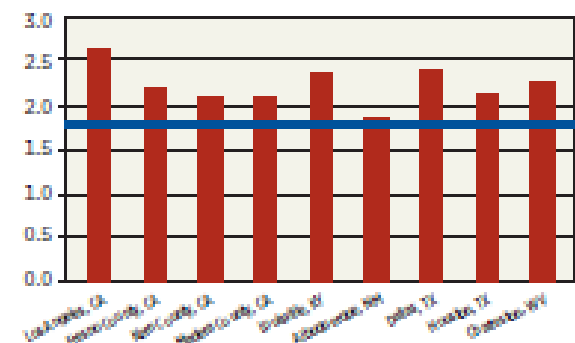
- At least half of all medical facilities (hospitals and nursing homes) are located within 3 miles of an RMP facility in all but one area. At least 70% of medical facilities are located in these fenceline zones in 6 out of the 9 areas. Nationally, only 39% of medical facilities are in fenceline zones.
- In 8 of the 9 areas, at least two-thirds (68%) of dollar stores are located within fenceline zones (compared to less than half of all dollar stores nationally).

FIGURE 8
Cancer Risk from Air Pollution in Fenceline Zones



The EPA estimates that the national average risk of cancer from a lifetime of exposure to toxic air pollution at 3071 levels is 40 cancers per million people. Within fenceline zones in the 9 cities or counties we studied, the risk is the same or higher in every case, and often much higher. Cancer risks within fenceline zones in these cities or counties are higher than for the entire area in all 9 areas studied.

FIGURE 9
Respiratory Hazard in Fenceline Zones



The EPA assesses risk of non-cancer respiratory illness from air pollution using its Respiratory Hazard Index (see Appendix A for more on RHI). In 8 of the 9 areas studied, the potential for respiratory illness is higher in fenceline zones than for the entire area. In every area studied, the RHI in fenceline zones is above the national index value of 1.8. It is important to note that even the national RHI is 80% greater than the level of toxic air pollution exposure that would represent no health concern (an index value of 1).

CHAPTER THREE RESULTS

THE NATIONAL SCOPE

EPA's Risk Management Plan (RMP) program includes approximately 12,500 industrial and commercial facilities that produce, use, or store significant quantities of certain highly toxic and flammable chemicals. These facilities pose serious risk to nearby residents, workers, and businesses because a major incident would result in deaths, injuries, significant property damage, evacuations, sheltering in place, or environmental damage. Almost 124 million people (39% of the US population) live within 3 miles of an RMP facility.

Almost half (45%) of the approximately 125,000 schools in the US are located within 3 miles of RMP facilities.⁶² This puts more than 24 million children as well as staff at these schools at particular risk from a catastrophic chemical facility incident. For example, the West Middle School in West, TX was severely damaged by an explosion at a fertilizer storage facility on April 17, 2013. A greater tragedy was averted only because the explosion happened during the night rather than during school hours.

About 4 in 10 (39%) of the almost 11,000 medical facilities (hospitals/nursing homes) in the US, are near RMP facilities.⁶³ A major chemical facility incident near these medical facilities could have catastrophic impacts on patients and staff. Due to physical damage and/or chemical exposure, the facility may also be unable to accept patients from the surrounding community.

Almost one-half (about 13,000) of the almost 27,000 dollar stores in the US* are located within three miles of an RMP facility.⁶⁴ Toxic chemicals in products and unhealthy foods available at these stores add to the potential health impacts on fenceline communities that also must contend with health risks from chemical facility releases, and often are exposed to high levels of toxic pollution and are poor with low access to healthy foods.

FIGURE 10
124 Million US Residents
Live within 3 Miles of
an RMP Facility

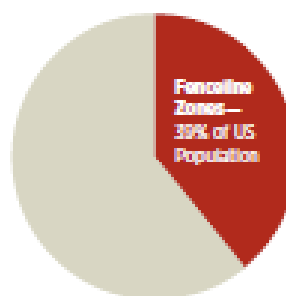


FIGURE 12
4 of 10 Hospitals and
Nursing Homes in the
US are within 3 Miles
of an RMP Facility

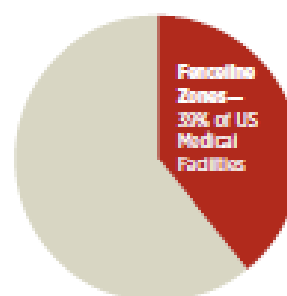


FIGURE 11
24 Million Children
Attend School within 3
Miles of an RMP Facility

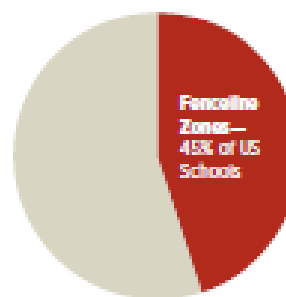
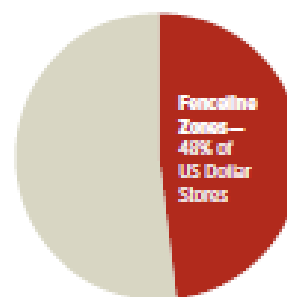


FIGURE 13
13,000 of 27,000 Dollar
Stores are within 3 Miles
of an RMP Facility

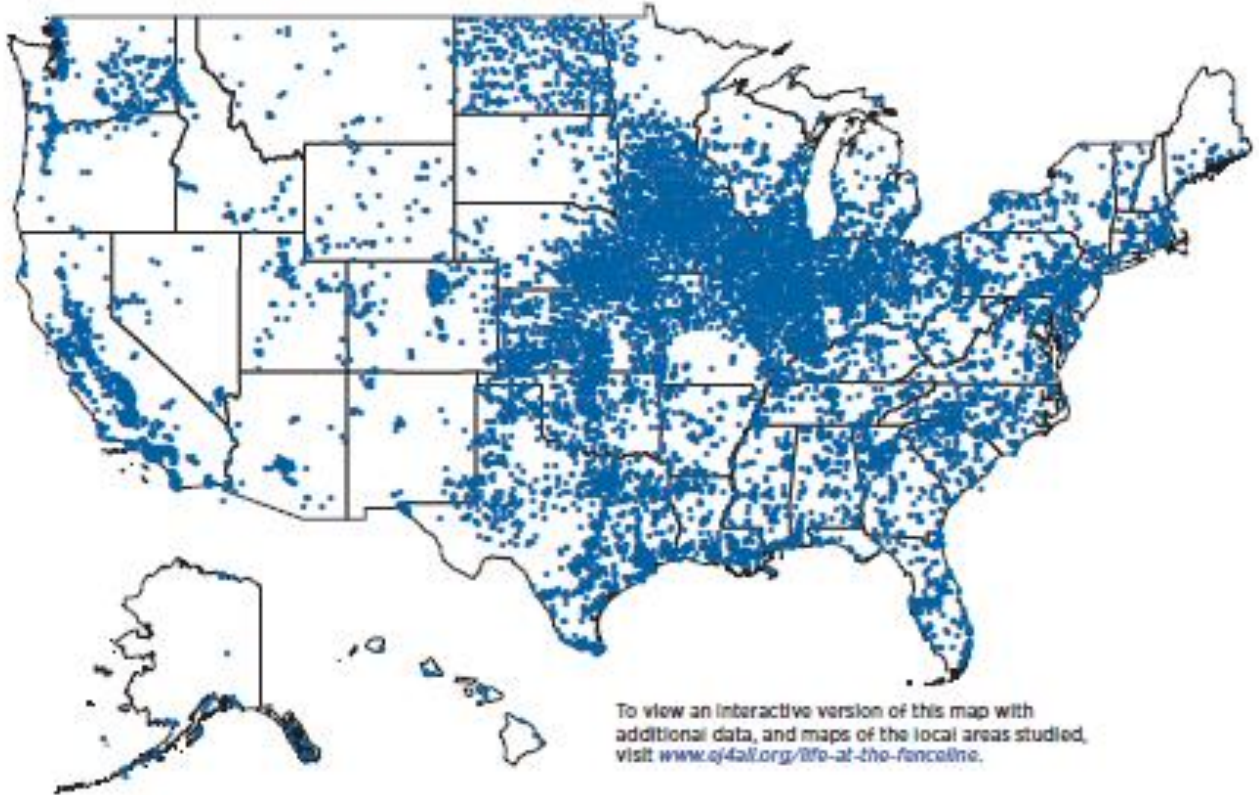


EPA'S RISK MANAGEMENT PLAN

program includes approximately 12,500 industrial and commercial facilities that produce, use, or store significant quantities of certain highly toxic and flammable chemicals.

* The vast majority of these stores are operated by the largest chains: Family Dollar and Dollar Tree (now owned by the same parent company), and Dollar General.

FIGURE 14
12,493 Active RMP Facilities in the US



RESULTS FOR STUDY AREAS

Population Demographics

- In 7 of the 9 areas examined, more than two-thirds (67%) of the people in each area live within 3 miles of an RMP facility (compared to only 39% nationally).
- In 7 of the 9 areas, the percentage of people living within 3 miles of an RMP facility who are poor is disproportionately higher than for the entire area.
- In all but one of the areas, the percentage of people of color living within 3 miles of an RMP facility was higher than for the entire area, especially for Blacks and Latinos, and in 7 of 9 areas is much higher than the national rate (38%).
- In 7 of the 9 areas, average home values within 3 miles of an RMP facility are lower compared to the entire area.
- In all but one of the areas, average household incomes were lower, sometimes substantially, for those living within 3 miles of an RMP facility compared to the entire area.

- In all 9 areas, the percentage of people with a high school or less education was higher for those living within 3 miles of an RMP facility compared to the entire area. In all but one area, the percentage of people with a college degree or higher was lower for those living within 3 miles of an RMP facility compared to the entire area.

Health Risks

- In all but 1 of the 9 areas, the cancer risk from toxic air pollution exposure for all people living in the entire area assessed was higher than the national average.
- For those living within 3 miles of an RMP facility, the cancer risk was higher than for the entire area in all 9 areas studied. The cancer risk for those living in areas with low incomes and low access to healthy foods within the fenceline zones was even higher in all 9 areas, in some cases substantially higher.

- In 6 of the 9 areas studied, the RHI (respiratory hazard) value from toxic air pollution exposure was greater than 2, indicating a significant potential for suffering respiratory illness.
- In 8 of 9 areas, the RHI values were higher for those living within 3 miles of an RMP facility than for the entire area, and increased further (to above 2) in all 9 areas for those living in parts of the fence-line zones with low incomes and low access to healthy foods.

Low Income with Low Access to Healthy Foods

- In every area, the percentage of the population living in low-income/low food access areas is significantly higher than the national rate, and is at least twice as high in 5 of the 9 areas.
- In all 9 areas, people living in areas with low incomes and low access to healthy foods within 3 miles of an RMP facility face higher health risks, and the percentage of people of color is greater, often substantially, compared to those living in parts of the 3-mile zones that are not low-income/low food access.

IN EVERY AREA, the percentage of the population living in low-income/low food access areas is significantly higher than the national rate, and is at least twice as high in 5 of the 9 areas.

TABLE 2
Demographic Data and Health Risks

	Albuquerque Totals/ 3 miles/3 miles LILA	Charleston Totals/ 3 miles/3 miles LILA	Dallas Totals/ 3 miles/3 miles LILA	Houston Totals/ 3 miles/3 miles LILA
Weighted RHI	1.74/1.86/2.17	2.39/2.26/2.40	2.37/2.40/2.48	2.09/2.13/2.29
Weighted Cancer Risk	38.25/39.45/41.91	50.83/52.04/54.01	46.25/46.58/47.67	44.74/45.57/47.26
% Poverty	18.4/18.4/28.0	15.7/15.6/22.5	16.3/17.7/27.2	17.2/18.4/28.5
% White	41.5/40.1/26.3	86.5/86.8/80.1	42.4/40.8/22.5	32.9/30.6/12.1
% Black	2.6/2.5/2.9	6.0/6.3/10.0	17.3/16.5/21.7	18.6/19.5/25.5
% Hispanic	48.4/50.1/64.0	11/0.9/0.9	31.5/34.7/51.0	39.0/40.2/56.1
% Children	23.3/23.0/24.3	19.7/20.5/19.9	26.9/26.9/29.4	27.1/26.7/28.8

	Fresno Totals/ 3 miles/ 3 miles LILA	Kern Totals/ 3 miles/ 3 miles LILA	Madera Totals/ 3 miles/ 3 miles LILA	Los Angeles Totals/ 3 miles/ 3 miles LILA	Louisville Totals/ 3 miles/ 3 miles LILA
Weighted RHI	2.06/2.19/2.37	1.91/2.07/2.24	1.56/2.07/2.11	2.59/2.63/2.83	2.26/2.37/2.46
Weighted Cancer Risk	48.62/50.57/52.02	45.69/48.20/49.60	46.37/56.32/57.27	50.17/50.22/52.06	47.35/48.85/50.86
% Poverty	27.6/29.4/37.8	23.4/24.7/34.1	22.3/28.6/35.2	17.6/18.6/24.8	16.0/19.6/31.1
% White	31.3/27.8/17.9	37.1/34.7/23.5	38.3/22.5/17.0	27.9/23.4/11.0	72.8/67.5/49.1
% Black	4.8/4.9/6.2	5.3/6.0/5.8	3.3/2.8/2.5	6.6/6.8/9.5	17.8/22.5/39.3
% Hispanic	51.7/54.2/63.4	50.6/52.6/65.3	52.8/70.0/75.8	47.3/52.4/67.4	4.5/4.8/6.1
% Children	29.0/29.8/31.6	29.3/29.9/32.6	27.4/32.1/34.5	23.1/24.0/26.9	22.6/22.3/23.9

City/County Totals: Result for the entire city or county.

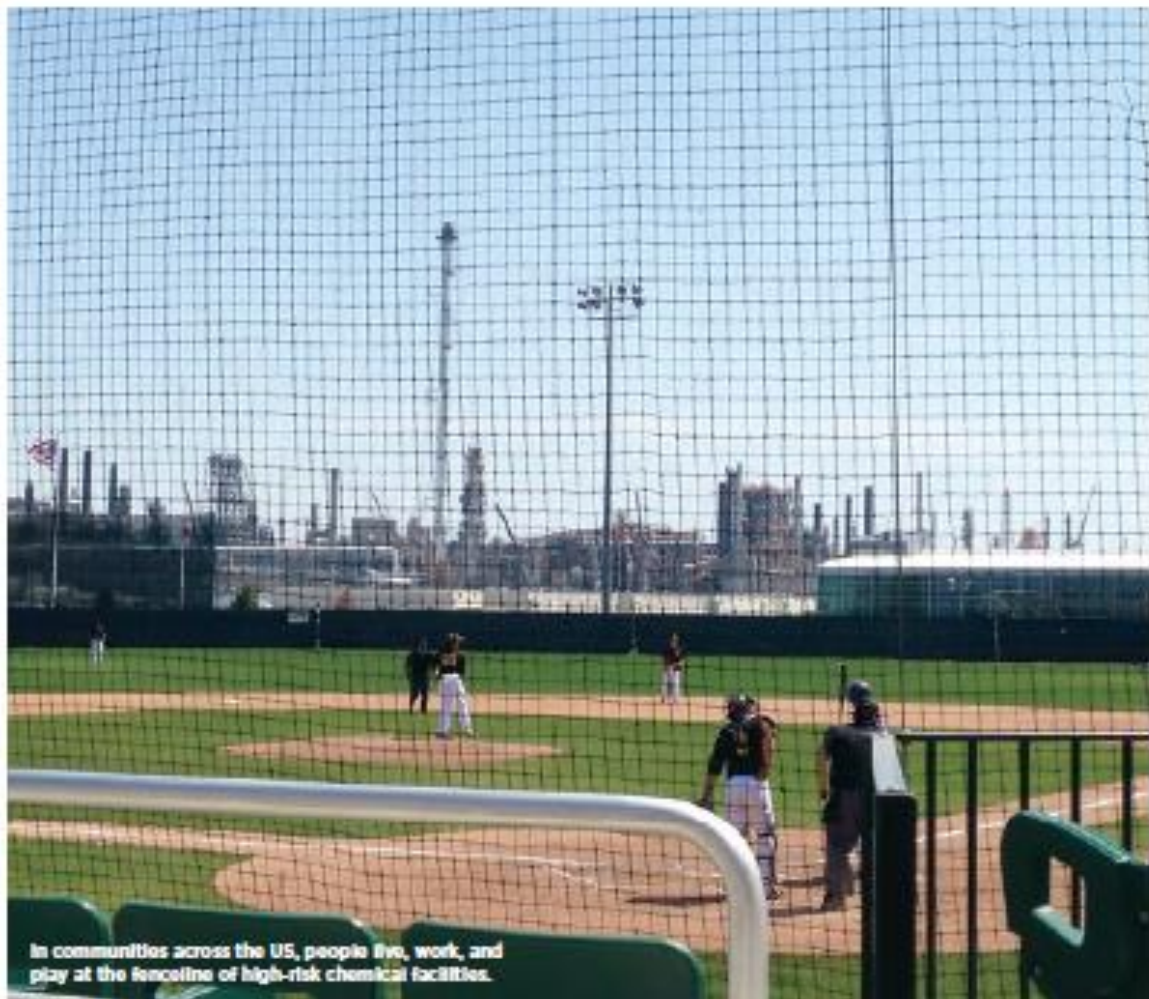
3 miles: The Fence-line Zones within 3 miles of an RMP facility.

3 miles LILA: Low Income and Low Access to food areas within Fence-line Zones.

See Appendix A for explanations of RHI (Respiratory Hazard Index) and Cancer Risk.

TABLE 3
RMP Facilities, Dollar Stores, Schools, and Medical Facilities in Study Areas

	RMP Facilities	RMP Facilities With Dollar Stores Within 3 Miles	% of RMP Facilities With Dollar Stores Within 3 Miles	Schools	Schools Within 3 Miles of an RMP Facility	% of Schools Within 3 Miles of an RMP Facility	Medical Facilities	Medical Facilities Within 3 Miles of an RMP Facility	% of Med Facilities that are Within 3 Miles of an RMP Facility
Los Angeles, CA	141	137	97.2%	3,972	2,828	71.1%	148	103	69.6%
Louisville, KY	23	23	100.0%	343	230	67.3%	16	14	87.5%
Albuquerque, NM	7	7	100.0%	279	106	37.9%	11	7	63.6%
Charleston, WV	13	13	100.0%	83	47	56.6%	7	2	28.6%
Dallas, TX	108	103	95.4%	1,821	1,251	68.7%	78	65	83.3%
Houston, TX	191	176	92.1%	1,624	1,165	71.7%	51	40	78.4%
Fresno Co., CA	77	52	67.5%	389	266	68.3%	49	35	71.4%
Kern Co., CA	97	29	29.9%	306	206	67.3%	30	23	76.7%
Hadera Co., CA	7	3	42.9%	90	35	38.9%	10	5	50.0%



In communities across the US, people live, work, and play at the fence-line of high-risk chemical facilities.

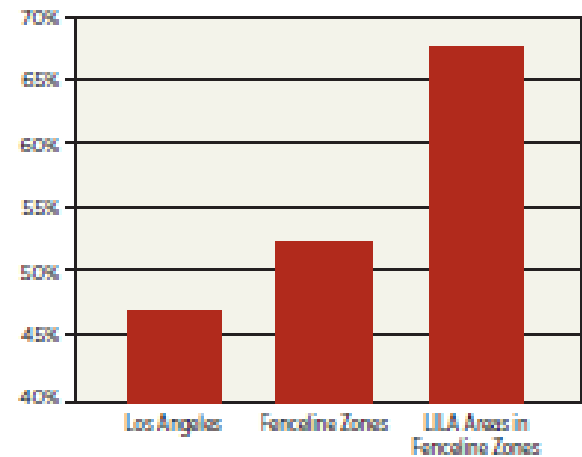
RESULTS: LOS ANGELES, CALIFORNIA

Los Angeles, our nation's second most populous urban area, is home to 141 RMP facilities, second only to Houston of all the areas studied for this report.

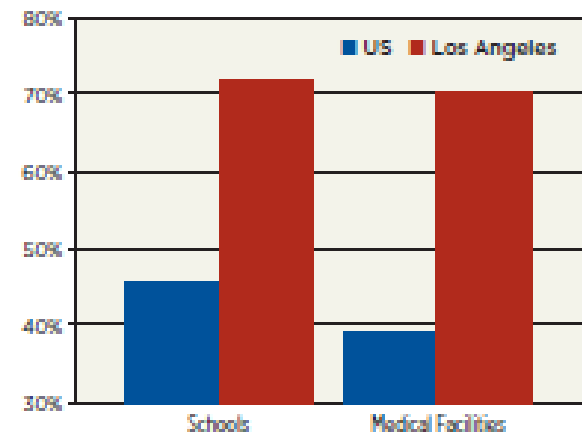
KEY FINDINGS

- More than 8,760,000 people, or 72% of people in Los Angeles, live within 3 miles of an RMP facility, which is 85% higher than the national rate. Eighty-two percent of people who live in areas with low incomes and low access to healthy foods also live within 3 miles of an RMP facility.
- The percentage of Latinos (Hispanics) who live in 3-mile zones is 11% higher than for the entire urban area (52% compared to 47%). More striking however, Latinos make up more than two-thirds of the population in low-income/low food access areas within fenceline zones, which is 42% greater than the representation of Latinos in Los Angeles.
- The percentage of Blacks in areas with low incomes and low access to healthy foods in the 3-mile zones is 44% greater than for the LA area as a whole.
- The potential for suffering respiratory illness is 9% higher for those living in low-income/low food access areas with fenceline zones compared to the Los Angeles urban area overall, which already has the highest potential for respiratory illness from toxic air pollution (a Respiratory Hazard Index of 2.59) of all the areas included in the study.
- Seventy-one percent of LA schools are located within 3 miles of an RMP facility, as are 70% of medical facilities. This represents a 56% and 70% increase over national percentages for schools and medical facilities, respectively, in these zones.
- Seventy-nine percent of all dollar stores in Los Angeles are located in 3-mile fenceline zones around RMP facilities.

Latino Population



Schools and Medical Facilities In Fenceline Zones

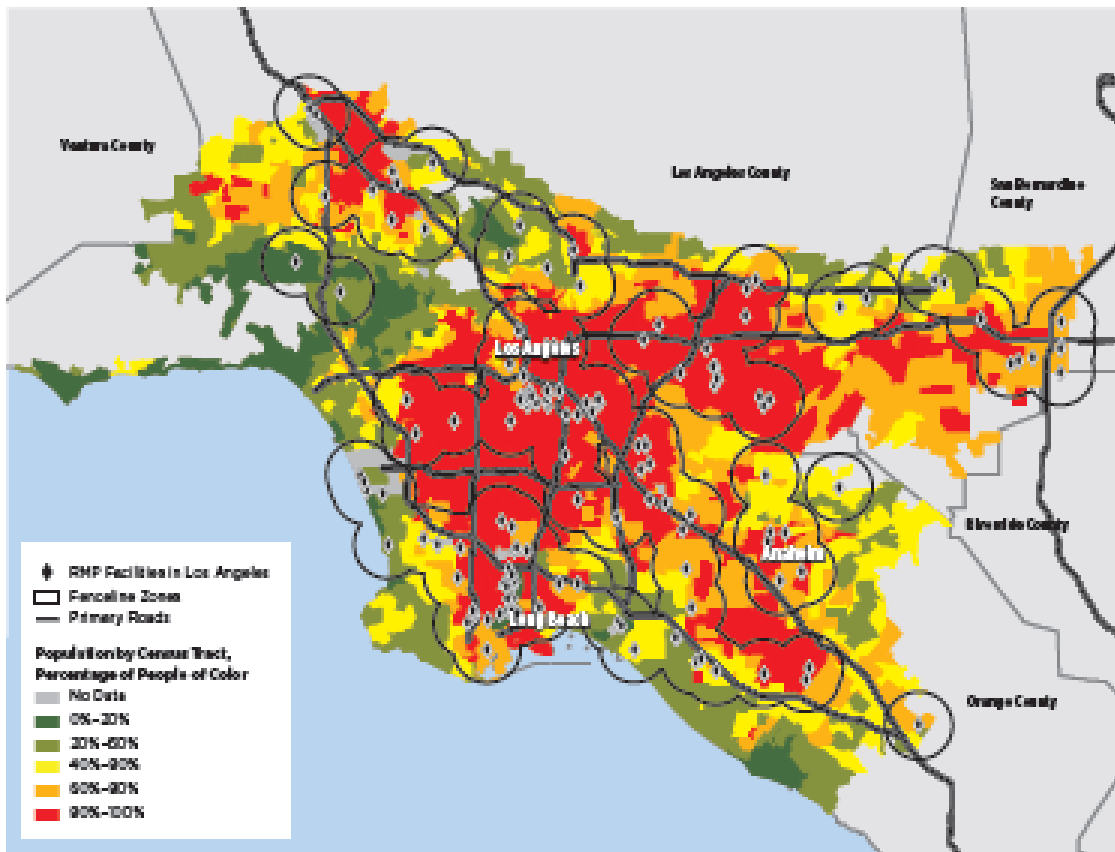


Jose Bravo of the Just Transition Alliance and Campaign for Healthier Solutions calls on EPA to prevent chemical disasters in Los Angeles.

72% OF THE POPULATION OF the Los Angeles Urban Area lives within 3 miles of an RMP facility.

Hazardous Facilities and Race in Los Angeles

For additional maps and other information about Los Angeles, visit <http://oj4all.org/life-at-the-fence/line>.



Los Angeles Data Summary

	Los Angeles Totals	Los Angeles 3 Mile Totals	Los Angeles 3 Mile LILA* Totals
Weighted Cancer	50.17	50.22	52.06
Weighted RHI	2.59	2.63	2.83
Percent Black	6.6%	6.8%	9.5%
Percent Hispanic	47.3%	52.4%	67.4%
Percent White	27.9%	23.4%	11.0%
Percent Children	23.7%	24.0%	26.9%
Percent Poverty	17.6%	18.6%	24.8%
Average Household Income	\$83,392	\$76,452	\$53,876
Average Home Value	\$550,046	\$475,794	\$314,249
Percent HS Graduate or Less	43.1%	47.4%	61.2%
Percent College Degree or More	28.0%	24.1%	13.7%

* LILA—Areas with Low-income populations with Low Access to healthy foods (see Box 3 on p.13).
 Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile areas data.

RESULTS: FRESNO COUNTY, CALIFORNIA

There are 77 RMP facilities located in Fresno County.

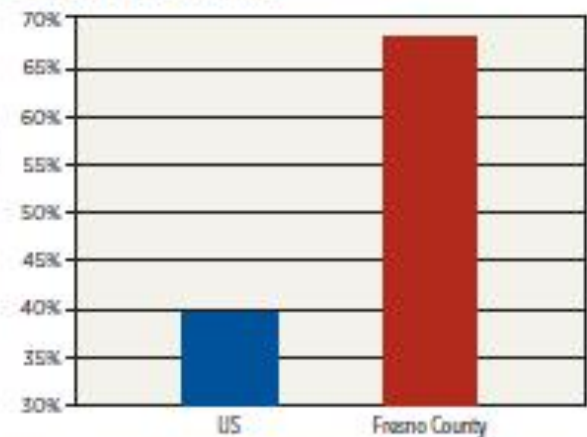
KEY FINDINGS

- Almost 637,000 people, or 68% of Fresno County residents, live within 3 miles of an RMP facility, a 74% increase over the national rate.
- The percentage of Latinos in areas with low incomes and low access to healthy foods in fence-line zones is 23% greater than for Latinos in Fresno County overall.
- Average household income for those in areas with low incomes and low access to healthy foods is 29% less than for Fresno County overall.
- The potential for suffering respiratory illness from toxic air pollution exposure is 15% higher for those in areas with low incomes and low access to healthy foods within fence-line zones compared to Fresno County overall, while cancer risks are 7% greater.
- Sixty-eight percent of Fresno County schools and 77% of medical facilities are located within 3 miles of an RMP facility.
- Seventy-four percent of all dollar stores are within 3 miles of an RMP facility.

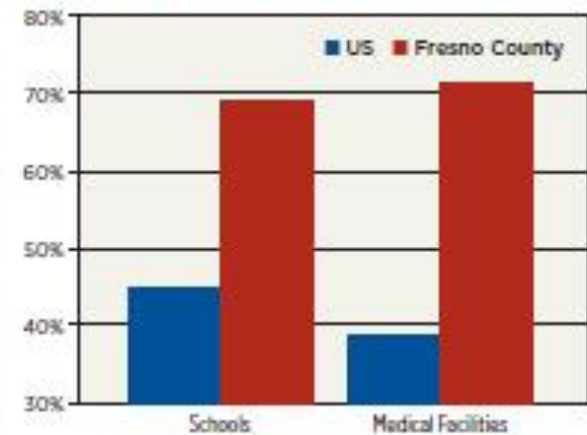


Members of *Lideres Campesinas* (which works in Fresno, Kern, and Madera Counties) call on dollar stores to remove toxic chemicals from the products they sell.

Percent of Residents in Fence-Line Zones Compared to National



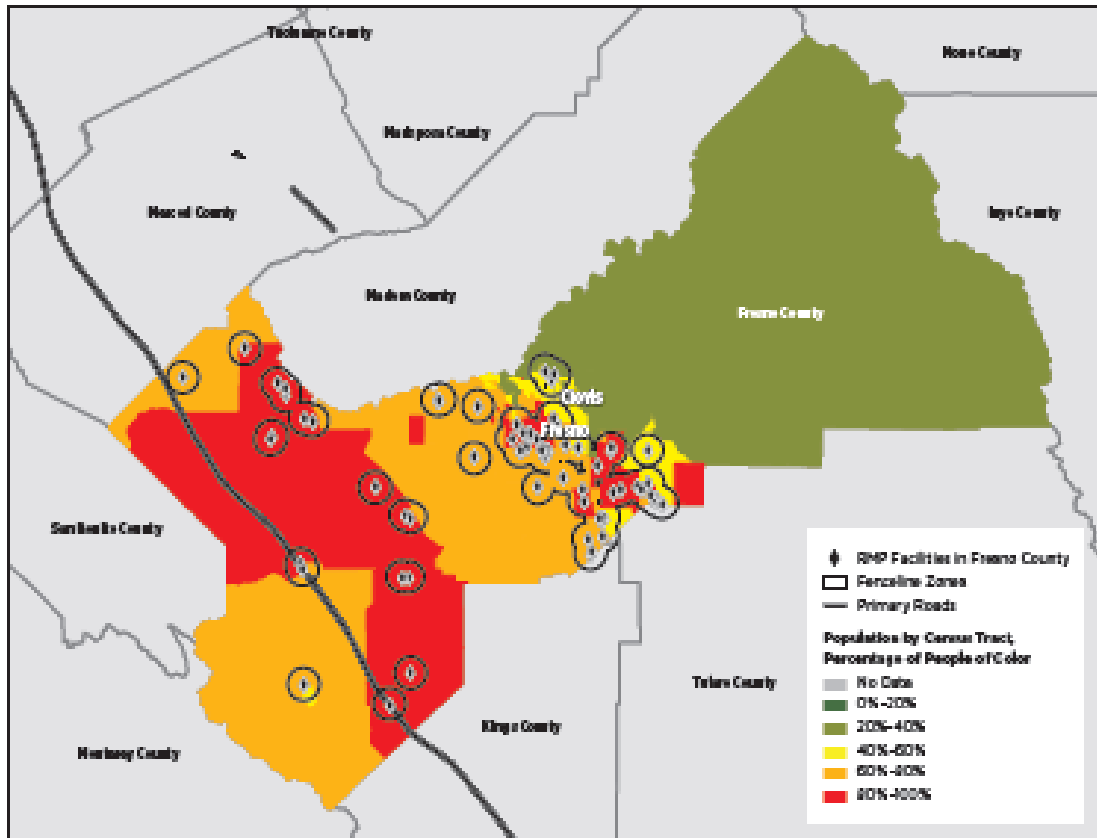
Schools and Medical Facilities in Fence-Line Zones



68% OF THE POPULATION OF
Fresno County lives within 3 miles of an
RMP facility.

Hazardous Facilities and Race in Fresno County

For additional maps and other information about Fresno County, visit <http://oj4all.org/life-at-the-fence/line>.



Fresno County Data Summary

	Fresno Co. Totals	Fresno Co. 3 Mile Totals	Fresno 3 Mile LILA* Totals
Weighted Cancer	46.62	50.57	52.02
Weighted RHI	2.06	2.19	2.37
Percent Black	4.8%	4.9%	6.2%
Percent Hispanic	51.7%	54.2%	63.4%
Percent White	31.3%	27.8%	17.9%
Percent Children	29.0%	29.8%	31.6%
Percent Poverty	27.6%	29.4%	37.8%
Average Household Income	\$62,411	\$59,806	\$44,332
Average Home Value	\$221,576	\$206,867	\$155,918
Percent HS Graduate or Less	49.9%	51.9%	62.8%
Percent College Degree or More	17.6%	16.6%	9.0%

* LILA—Areas with Low-Income populations with Low Access to healthy foods (see Box 2 on p.13).

Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile areas data.

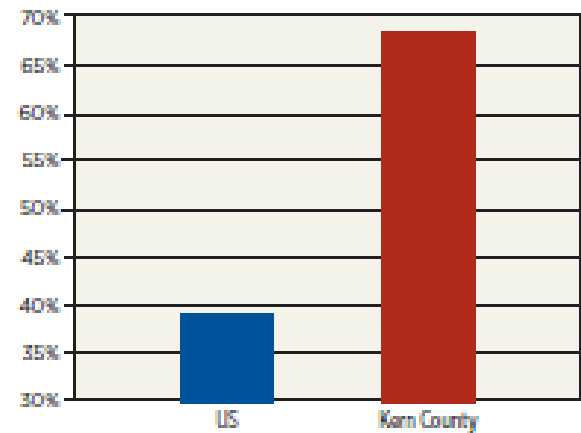
RESULTS: KERN COUNTY, CALIFORNIA

There are 97 RMP facilities located in Kern County.

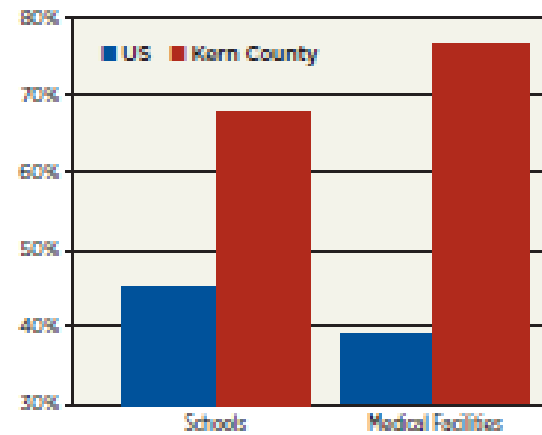
KEY FINDINGS

- Almost 581,000 people, or 68% of Kern county residents, live within 3 miles of an RMP facility, a 74% increase over the national rate.
- While Latinos represent just over 50% of the county's population, 65% of people living in areas with low incomes and low access to healthy foods within the 3-mile fence-line zones are Latino, a 29% increase.
- The potential for suffering respiratory illness from toxic air pollution exposure is 17% higher for those living in low-income/low food access areas within fence-line zones compared to Kern County overall, while cancer risks are 9% greater.
- More than two-thirds of all Kern County schools and more than three-quarters of medical facilities are located within 3 miles of an RMP facility.
- Seventy-two percent of all dollar stores in Kern County are located within 3 miles of an RMP facility.

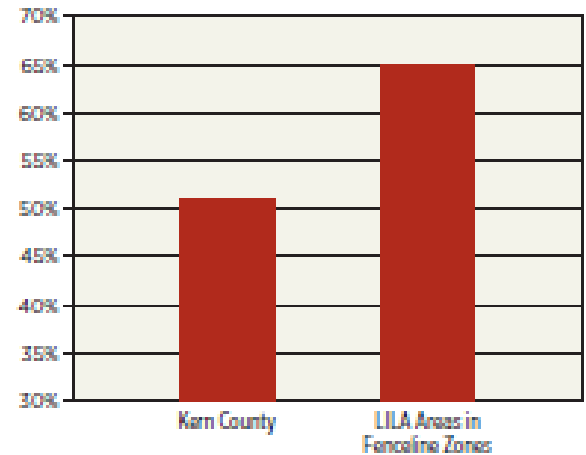
Percent of Residents in Fence-line Zones Compared to National



Schools and Medical Facilities In Fence-line Zones



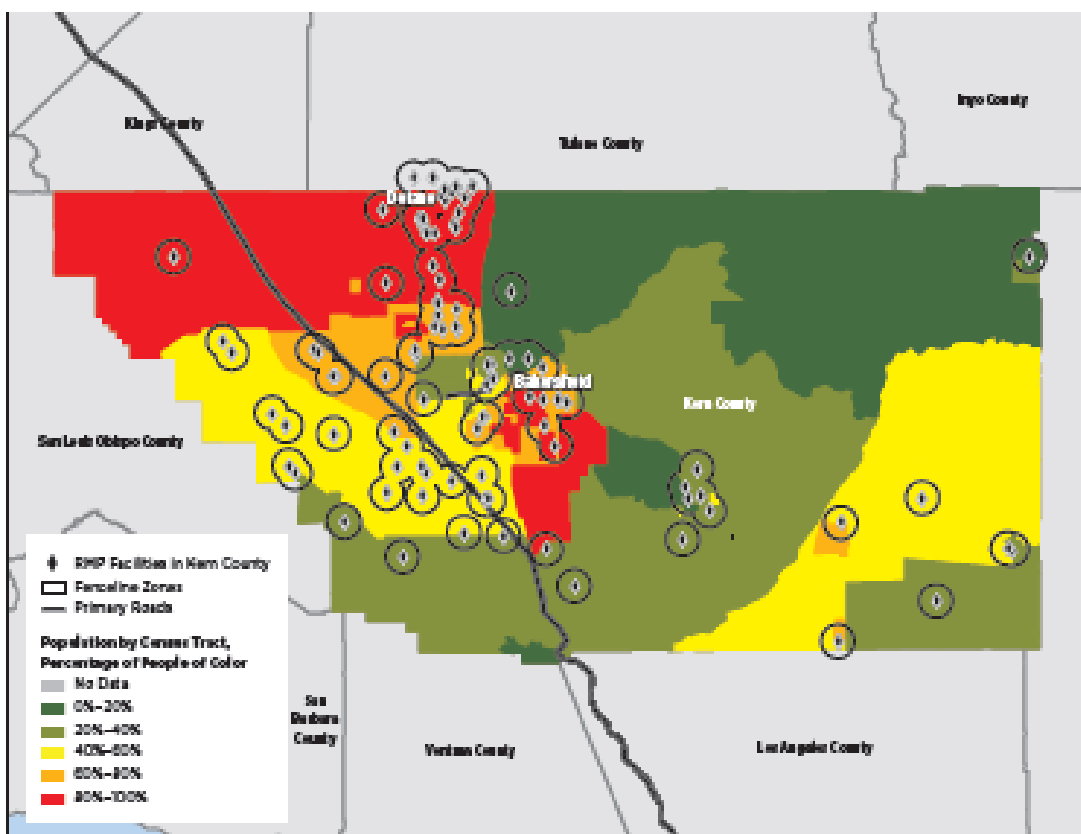
Latino Population



68% OF THE POPULATION of Kern County lives within 3 miles of an RMP facility.

Hazardous Facilities and Race in Kern County

For additional maps and other information about Kern County, visit <https://ej4all.org/life-at-the-fence-line>.



Kern County Data Summary

	Kern Co. Totals	Kern Co. 3 Mile Totals	Kern County 3 Mile LILA* Totals
Weighted Cancer	45.69	48.20	49.60
Weighted BHI	1.91	2.07	2.24
Percent Black	5.3%	6.0%	5.8%
Percent Hispanic	50.6%	52.6%	65.3%
Percent White	37.1%	34.1%	23.5%
Percent Children	29.3%	29.9%	32.6%
Percent Poverty	23.4%	24.7%	34.1%
Average Household Income	\$45,432	\$63,516	\$46,082
Average Home Value	\$188,274	\$183,073	\$136,360
Percent HS Graduates or Less	53.5%	54.0%	65.8%
Percent College Degree or More	14.1%	13.8%	7.3%

* LILA—Areas with Low-Income populations with Low Access to healthy foods (see Box 2 on p.12).
 Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile areas data.

RESULTS: MADERA COUNTY, CALIFORNIA

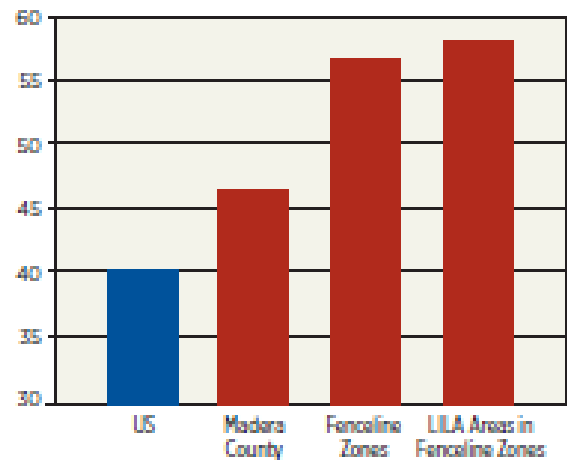
Madera County contains seven RMP facilities.

KEY FINDINGS

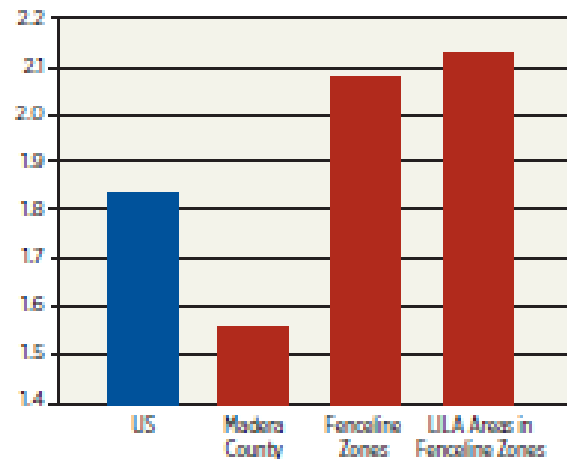
- More than 77,000 people, or 47% of Madera County residents, live within 3 miles of an RMP facility, a 21% increase over the national rate.
- Strikingly, almost 100% of those living in low-income/low food access areas in Madera County also live within 3 miles of an RMP facility, a rate that is more than twice the percent of county residents who live within fenceline zones (47%).
- The potential for suffering respiratory illness from toxic air pollution exposure is 33% higher for those living within 3 miles of an RMP facility compared to Madera County overall, and those living in low-income/low food access areas within these fenceline zones face a 35% higher risk.
- Cancer risk from exposure to toxic air pollution is 21% higher for those living within 3 miles of an RMP facility compared to Madera County overall. Those living in low-income/low food access areas within fenceline zones face a 24% higher cancer risk (about 57 cancers per million people), which is the highest risk of all 9 areas included in this report.
- While Latinos make up about 53% of the county's population, 70% of people living within 3 miles of an RMP facility are Latino, a 33% increase over their overall county representation. Latinos make up 76% of the population in low-income/low food access areas within these fenceline zones, a 44% increase over their overall county representation.
- The percentage of people living in poverty within 3 miles of an RMP facility is 28% greater than for Madera County overall. More strikingly, the poverty rate in low-income/low food access (LILA) areas within 3 miles of an RMP facility is 58% greater than for the county as a whole.
- Twenty-seven percent of Madera County residents are children, but 35% of the residents of low-income/low food access areas within fenceline zones are children, a 26% increase.
- The average household income for those living within 3 miles of an RMP facility is 17% lower than for Madera County overall. For those living in areas with low incomes and low access to healthy food, the drop in average household incomes doubles to 34%.

- Half of all medical facilities in Madera County are located within 3 miles of an RMP facility, as are 39% of schools.
- Seventy-five percent of all dollar stores in Madera County are located within 3 miles of an RMP facility, and 43% of RMP facilities have a dollar store within 3 miles.

Cancer Risk from Air Pollution

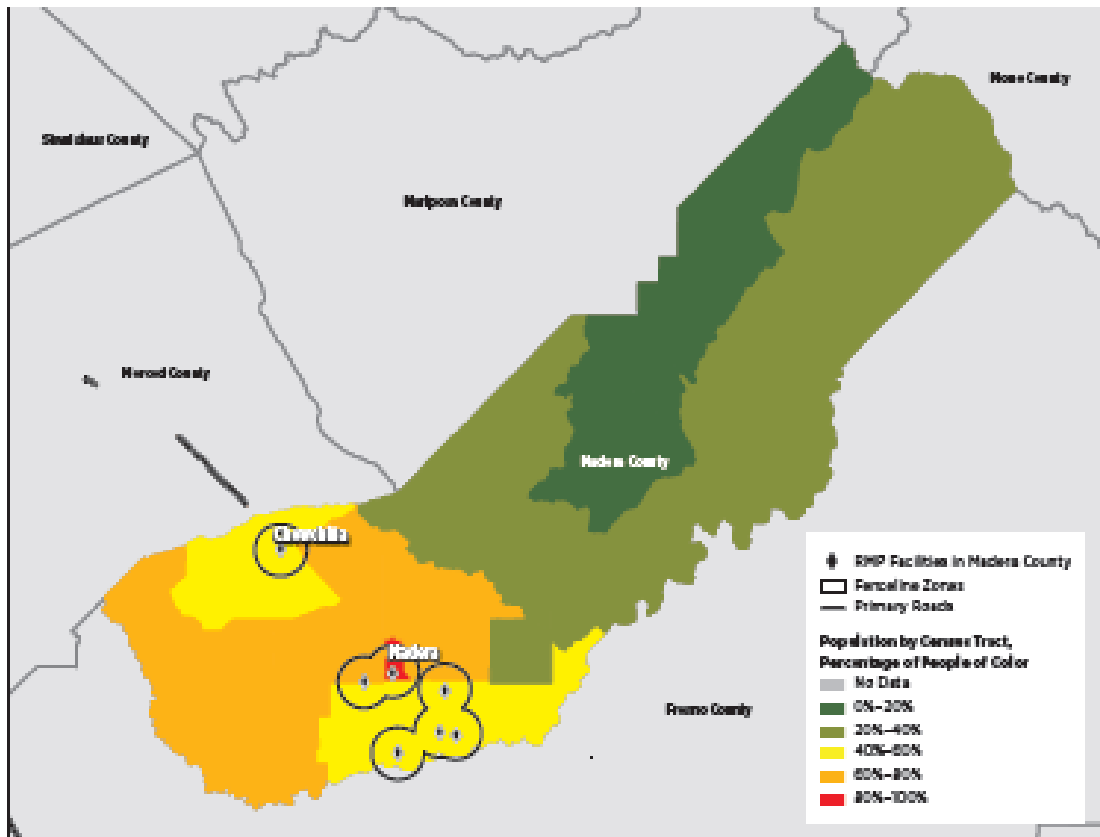


Respiratory Hazard from Air Pollution



Hazardous Facilities and Race In Madera County

For additional maps and other information about Madera County, visit <https://ej4all.org/life-at-the-fenceline>.



Madera County Data Summary

	Madera Co. Totals	Madera Co. 3 Mile Totals	Madera County 3 Mile LILA* Totals
Weighted Cancer	46.37	56.32	57.27
Weighted RHI	156	2.07	2.11
Percent Black	3.3%	2.8%	2.5%
Percent Hispanic	52.8%	70.0%	75.8%
Percent White	38.3%	22.5%	17.0%
Percent Children	27.4%	32.1%	34.5%
Percent Poverty	22.3%	28.6%	35.2%
Average Household Income	\$63,832	\$52,779	\$42,043
Average Home Value	\$242,651	\$196,986	\$154,031
Percent HS Graduate or Less	51.7%	63.0%	71.2%
Percent College Degree or More	14.4%	9.3%	6.0%

* LILA—Area with Low-Income populations with Low Access to healthy foods (see Box 2 on p.12).
 Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile area data.

RESULTS: LOUISVILLE, KENTUCKY

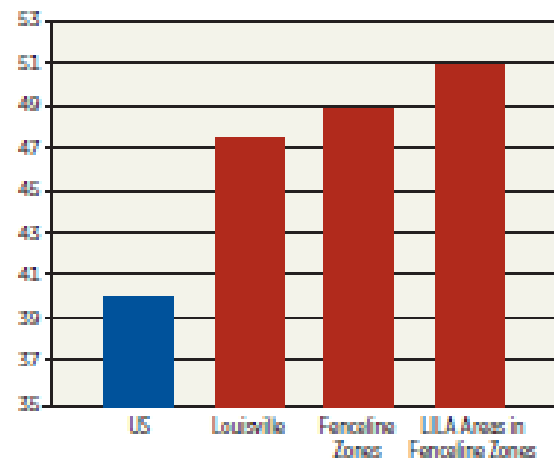
There are 23 RMP facilities located in Louisville.

KEY FINDINGS

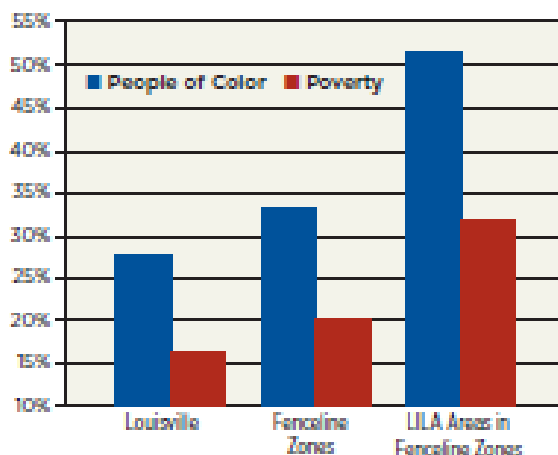
- Almost 606,000 people, or 67% of Louisville residents, live within 3 miles of an RMP facility, a 72% increase over the national rate.
- Ninety-two percent of Louisville residents who live in low-income/low food access (LILA) areas also live within a fence-line zone, a rate 37% greater than for all residents.
- The potential for suffering respiratory illness from toxic air pollution exposure is 9% higher for those in low-income/low food access areas within fence-line zones compared to Louisville overall, while cancer risks for those living in these areas are 7% greater.
- The percentage of people living in poverty within 3 miles of an RMP facility is 23% greater than for Louisville overall. This difference increases substantially to 94% greater for low-income/low food access areas within the fence-line zones.
- The average household income for those living in low-income/low food access areas within fence-line zones is 41% lower than for all those living in Louisville.
- While Blacks make up 18% of Louisville's population, 23% of people living within 3 miles of an RMP facility are Black, a 28% increase over their overall county representation. Strikingly, in low-income/low food access areas within fence-line zones, Blacks make up 39% of the population, more than twice the city rate.

- All of Louisville's 23 RMP facilities have at least one dollar store located within 3 miles, and 73% of all dollar stores are located within 3 miles of an RMP facility.
- More than two-thirds (67%) of Louisville schools are located within 3 miles of an RMP facility, as are 88% of medical facilities.

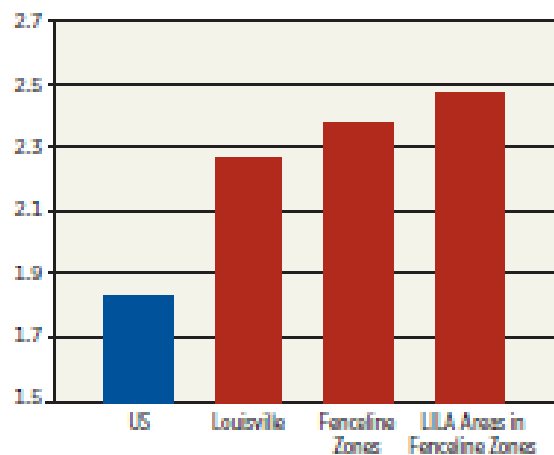
Cancer Risk from Air Pollution



Race and Poverty In Louisville

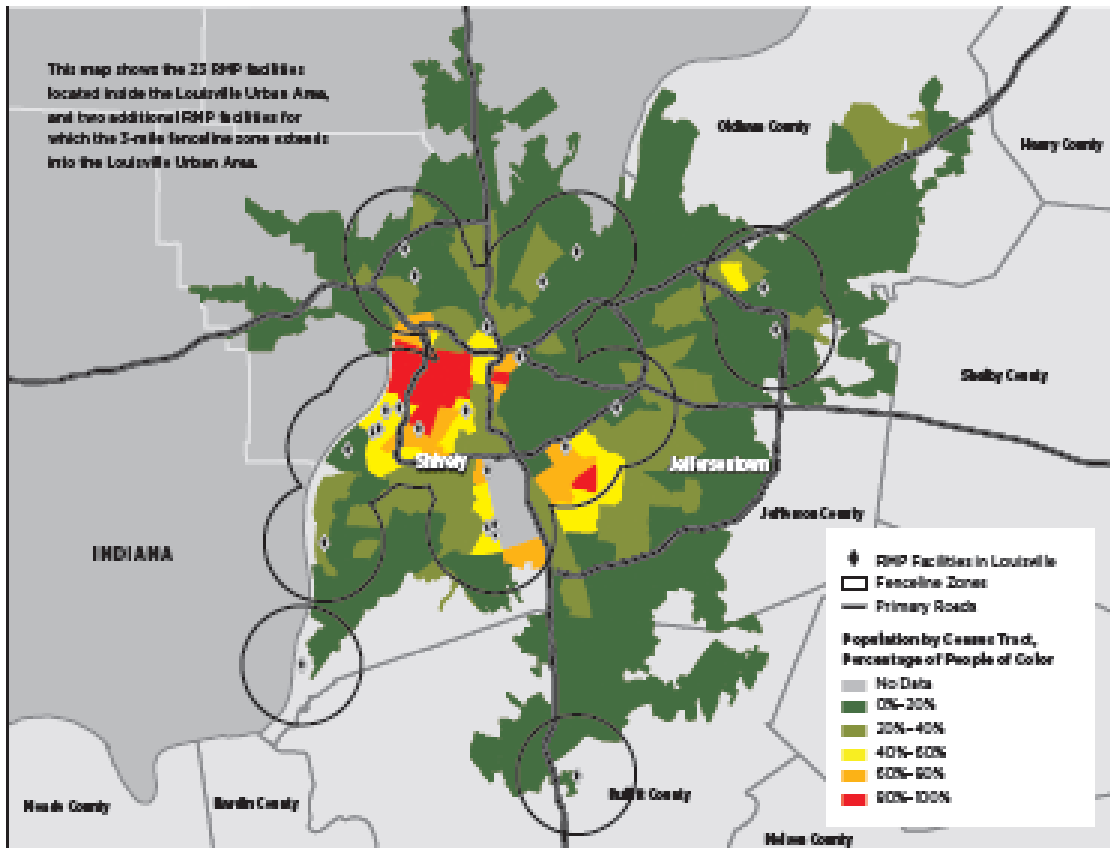


Respiratory Hazard from Air Pollution



Hazardous Facilities and Race in Louisville

For additional maps and other information about Louisville, visit <https://aj4all.org/life-at-the-fenceline>.



Louisville Data Summary

	Louisville Totals	Louisville 3 Mile Totals	Louisville 3 Mile L.L.A.* Totals
Weighted Cancer	47.35	48.85	50.86
Weighted RHI	2.26	2.37	2.46
Percent Black	17.8%	22.5%	39.3%
Percent Hispanic	4.5%	4.8%	6.1%
Percent White	72.8%	67.5%	49.1%
Percent Children	22.6%	22.3%	23.9%
Percent Poverty	16.0%	19.6%	31.1%
Average Household Income	\$66,720	\$60,889	\$39,452
Average Home Value	\$181,660	\$170,253	\$103,050
Percent HS Graduate or Less	40.8%	43.7%	54.4%
Percent College Degree or More	26.8%	24.8%	13.9%

* L.L.A.—Areas with Low-income populations with Low Access to healthy foods (see Box 3 on p.13).

Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile areas data.

RESULTS: ALBUQUERQUE, NEW MEXICO

There are seven RMP facilities located in Albuquerque.

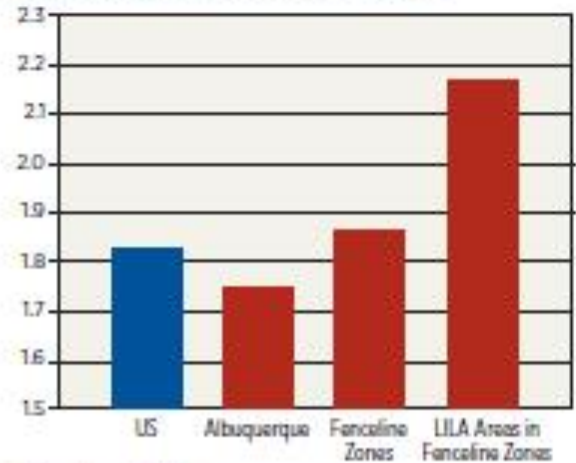
KEY FINDINGS

- More than 268,000 people, or 39% of people living in Albuquerque, live within 3 miles of an RMP facility.
- The potential for suffering respiratory problems from toxic air pollution exposure is 25% higher for those in low-income/low food access areas within fence-line zones compared to Albuquerque overall, while cancer risk is 10% higher.
- The percentage of Latinos in low-income/low food access areas within fence-line zones is 32% greater than for Latinos in Albuquerque overall, and is more than twice the rate for whites in these areas.
- The average household income for those living in low-income/low food access areas within 3 miles of an RMP facility is 26% lower than for Albuquerque as a whole.
- The percentage of those living in areas with low incomes and low access to healthy foods who have a high school or less education is 36% greater than for Albuquerque overall. The percentage of those living in low-income/low food access areas with a college degree or more education is 39% lower than for Albuquerque overall.

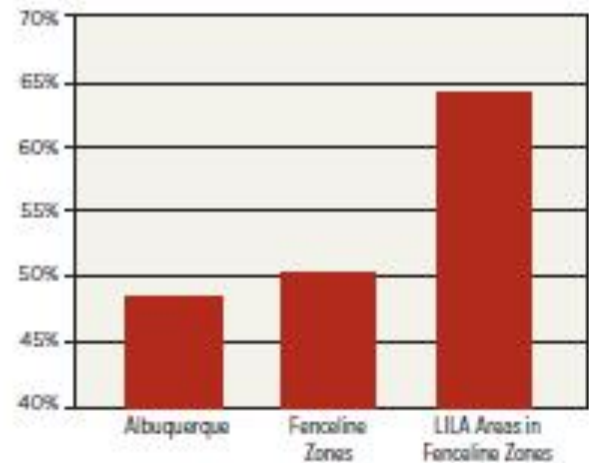


Leaders of the Campaign for Healthier Solutions, Los Jardines Institute, and allies call on dollar stores to sell healthier foods and safer products.

Respiratory Hazard from Air Pollution



Latino Population

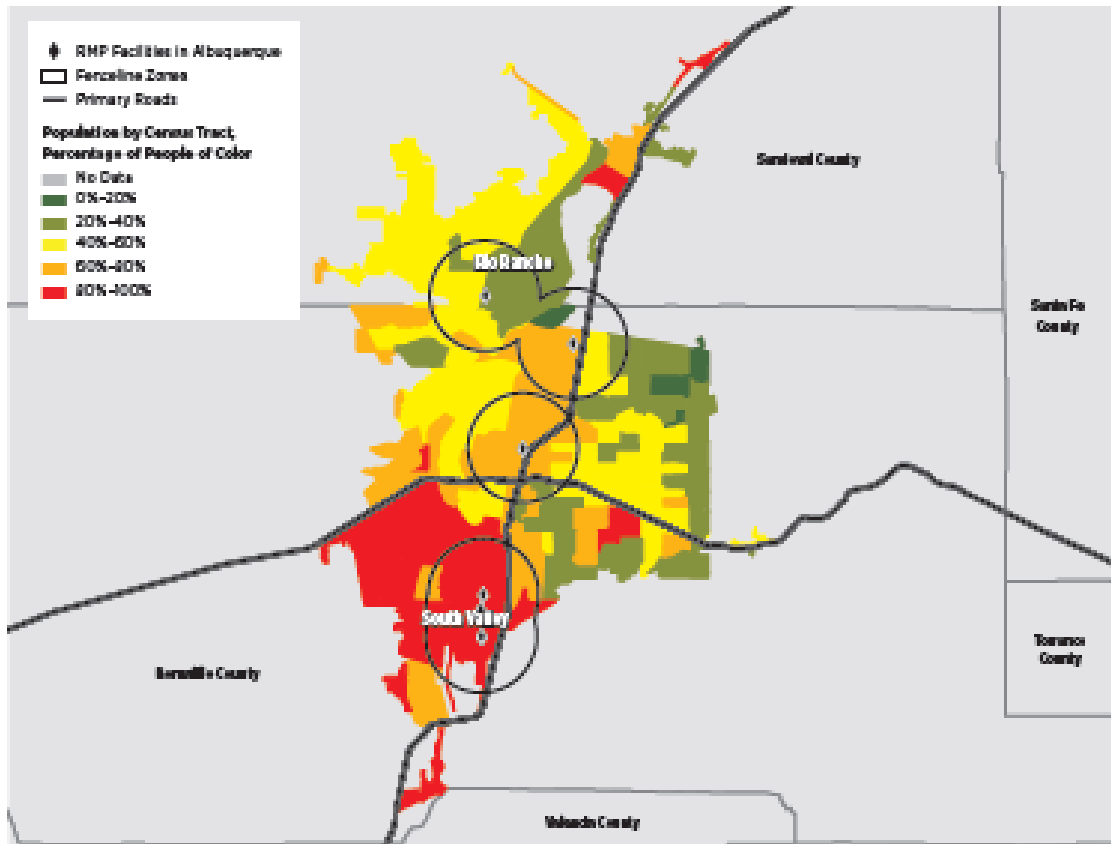


39% OF THE POPULATION OF

Albuquerque lives within 3 miles of an RMP facility.

Hazardous Facilities and Race in Albuquerque

For additional maps and other information about Albuquerque, visit <https://sj4all.org/life-at-the-fence/line>.



Albuquerque Data Summary

	Albuquerque Totals	Albuquerque 3 Mile Totals	Albuquerque 3 Mile LILA* Totals
Weighted Cancer	38.25	39.45	41.91
Weighted RHI	1.74	1.86	2.17
Percent Black	2.6%	2.5%	2.9%
Percent Hispanic	48.4%	50.7%	64.0%
Percent White	41.5%	40.7%	26.3%
Percent Children	23.3%	23.0%	24.3%
Percent Poverty	18.4%	18.4%	28.0%
Average Household Income	\$65,070	\$65,970	\$47,908
Average Home Value	\$209,745	\$219,400	\$150,054
Percent HS Graduate or Less	36.2%	37.4%	50.2%
Percent College Degree or More	29.4%	29.6%	18.9%

* LILA—Areas with Low-income populations with Low Access to healthy foods (see Box 2 on p.13).
 Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile area data.

RESULTS: DALLAS, TEXAS

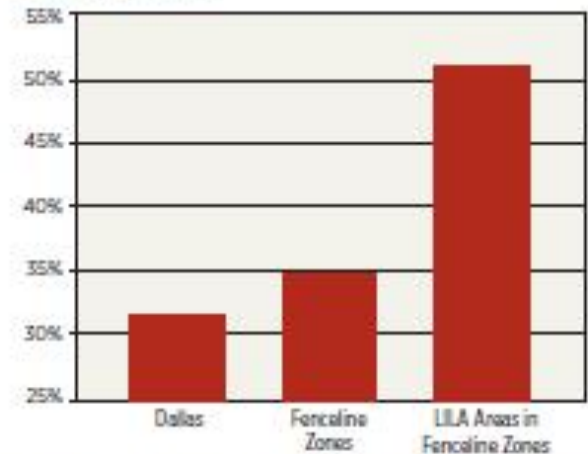
There are 108 RMP facilities located in Dallas.

KEY FINDINGS

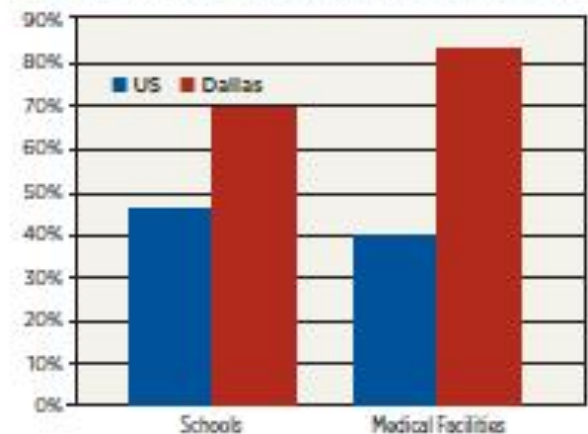
- Almost 3.5 million people, or 72% of Dallas residents, live within 3 miles of an RMP facility, an 85% increase over the national rate.
- Seventy-nine percent of people living in low-income/low food access areas in Dallas also live within 3 miles of an RMP facility.
- The percentage of people living in poverty in low-income/low food access areas within 3 miles of an RMP facility is 67% higher than for those in poverty in Dallas overall.
- The average household income for those living in low-income/low food access areas within 3 miles of an RMP facility is 39% lower than for all those living in Dallas.
- While Latinos make up less than one-third Dallas's population, more than half of people in low-income/low food access areas within 3 miles of an RMP facility are Latino, a 62% increase. The percentage of Latinos is more than twice the rate for whites in low-income/low food access areas within the fenceline zones.
- Blacks make up 17% of the Dallas population, but constitute 22% of people in areas with low incomes and low access to healthy foods within in the 3-mile fenceline zones, a 25% increase.
- More than 80% of all medical facilities in Dallas are located within 3 miles of an RMP facility, as are more than two-thirds of schools.
- Ninety-five percent of RMP facilities in Dallas have a dollar store within 3 miles, and 70% of dollar stores are located within 3 miles of an RMP facility.



Latino Population



Schools and Medical Facilities In Fenceline Zones

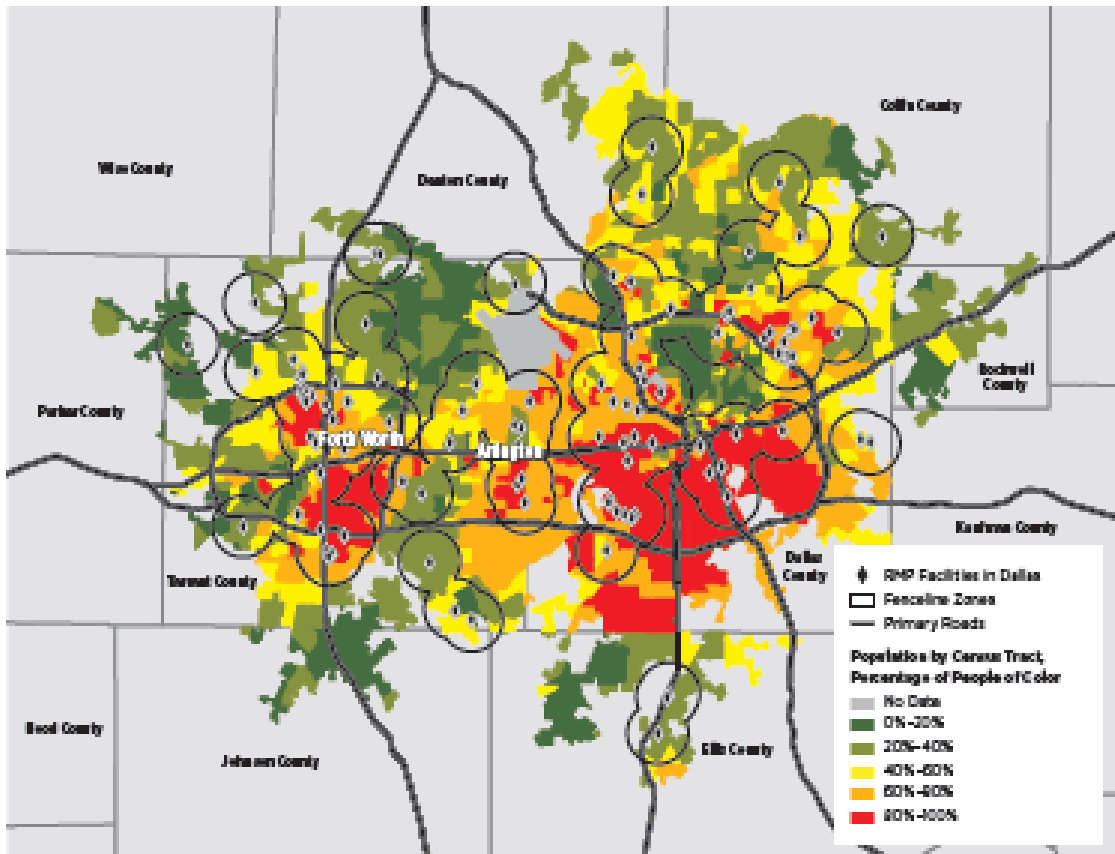


72% OF THE POPULATION OF
the Dallas Urban Area lives within 3 miles
of an RMP facility.

Left: A 2007 explosion at Southwest Industrial Gases in Dallas sent flaming debris onto highways and buildings.

Hazardous Facilities and Race in Dallas

For additional maps and other information about Dallas, visit <https://ej4all.org/life-at-the-fence/line>.



Dallas Data Summary

	Dallas Totals	Dallas 3 Mile Totals	Dallas 3 Mile LILA* Totals
Weighted Cancer	46.25	46.58	47.67
Weighted RHI	2.37	2.40	2.48
Percent Black	17.3%	16.5%	21.7%
Percent Hispanic	31.5%	34.7%	51.0%
Percent White	42.4%	40.8%	22.5%
Percent Children	26.9%	26.9%	29.4%
Percent Poverty	16.3%	17.7%	27.2%
Average Household Income	\$80,130	\$74,771	\$49,036
Average Home Value	\$204,060	\$189,682	\$114,414
Percent HS Graduate or Less	39.5%	42.6%	60.7%
Percent College Degree or More	30.6%	28.1%	14.4%

* LILA—Areas with Low-income populations with Low Access to healthy foods (see Box 2 on p.13).
 Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile areas data.

RESULTS: HOUSTON, TEXAS

There are 191 RMP facilities located in Houston, the most of any of the areas included in this report.

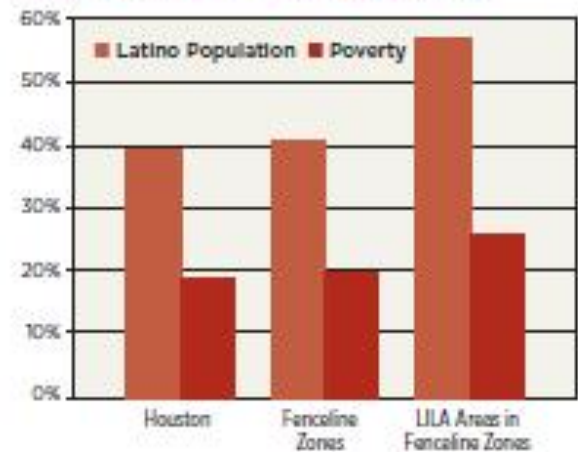
KEY FINDINGS

- Almost 3.6 million people, or three-quarters of Houston residents, live within 3 miles of an RMP facility, a 92% increase above the national rate.
- Eighty-two percent of Houston residents who live in low-income/low food access areas also live within RMP facility fence-line zones.
- The percentage of people in poverty in low-income/low food access areas within 3 miles of an RMP facility is 66% higher than for those in poverty in Houston overall.
- The average household income for those living in low-income/low food access areas within the fence-line zones is 41% lower than for all those living in Houston.
- Latinos make up 39% of Houston's population but represent 56% of those living in low-income/low food access areas within 3 miles of an RMP facility (a 44% greater rate). Blacks comprise 19% of the Houston population, but make up 26% of those living in low-income/low food access areas within the fence-line zones (a 37% greater rate).
- Seventy-eight percent of all Houston medical facilities and 72% of schools are within 3 miles of an RMP facility.
- Ninety-two percent of RMP facilities in Houston have a dollar store within 3 miles and almost three-quarters of all dollar stores are located within 3 miles of an RMP facility.

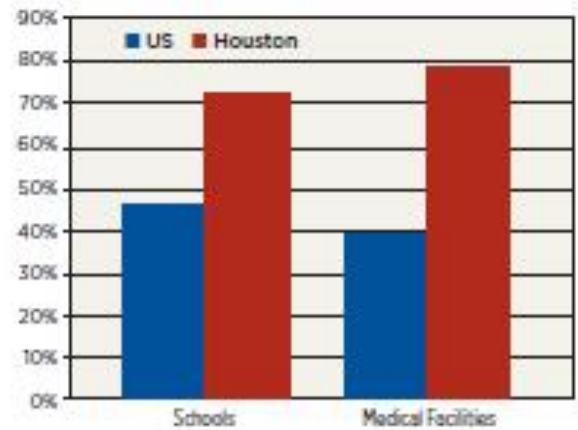


Houston contains 191 high-risk chemical facilities.

Latino Population and Poverty in Houston



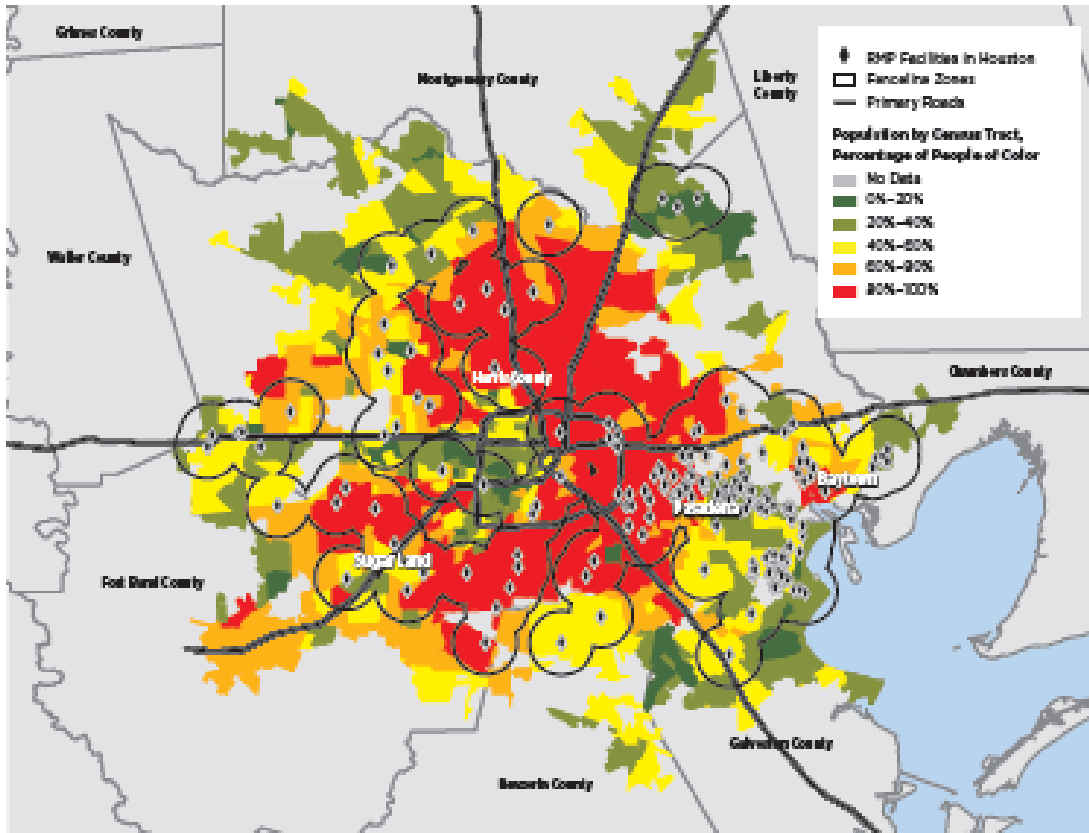
Schools and Medical Facilities in Fence-line Zones



75% OF THE POPULATION OF Houston lives within 3 miles of an RMP facility.

Hazardous Facilities and Race in Houston

For additional maps and other information about Houston, visit <https://ej4all.org/life-at-the-fenceline>.



Houston Data Summary

	Houston Totals	Houston 3 Mile Totals	Houston 3 Mile LILA* Totals
Weighted Cancer	44.74	45.57	47.26
Weighted RHI	2.09	2.13	2.29
Percent Black	18.6%	19.5%	25.5%
Percent Hispanic	39.0%	40.2%	56.1%
Percent White	32.9%	30.6%	12.1%
Percent Children	27.1%	26.7%	28.8%
Percent Poverty	17.2%	18.4%	28.5%
Average Household Income	\$82,920	\$80,522	\$48,832
Average Home Value	\$197,888	\$201,040	\$105,512
Percent HS Graduate or Less	42.1%	43.2%	61.6%
Percent College Degree or More	28.8%	28.1%	13.9%

* LILA—Areas with Low-income populations with Low Access to healthy foods (see Box 3 on p.13)
 Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile areas data.

RESULTS: CHARLESTON, WEST VIRGINIA

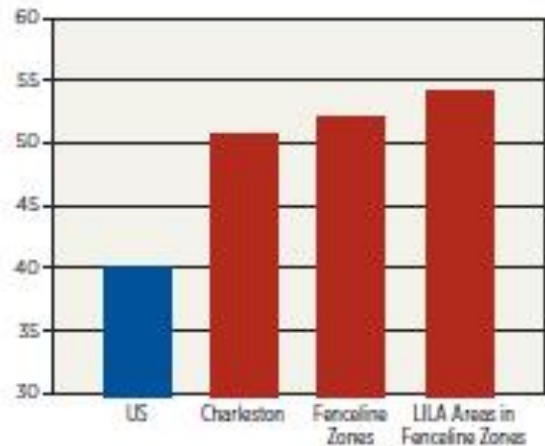
There are 13 RMP facilities located in Charleston.

KEY FINDINGS

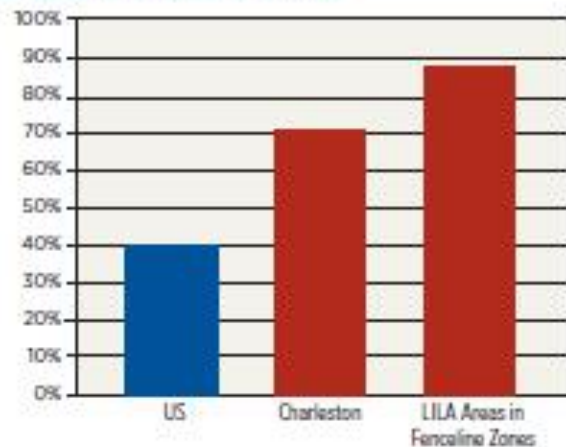
- Seventy percent of people in Charleston live within 3 miles of an RMP facility, an 80% increase over the national rate.
- Eighty-seven percent of Charleston residents who live in low-income/low food access areas also live in fenceline zones (more than twice the rate of all US residents who live in RMP facility fenceline zones, which is 39%).
- People living in Charleston face the highest cancer risk (approximately 51 cancers per million people) from toxic air pollutants of all 9 areas included in this report. Those risks increase further for those living in low-income/low food access areas within 3 miles of an RMP facility.
- The percentage of people in poverty in low-income/low food access areas within 3 miles of an RMP facility is 43% higher than for those in poverty in Charleston overall.
- The average household income for those living in low-income/low food access areas within 3 miles of an RMP facility is 28% lower than for all those living in Charleston.
- More than half of Charleston schools and almost 30% of medical facilities are located within 3 miles of an RMP facility.
- All of Charleston's 13 RMP facilities have at least one dollar store located within 3 miles, and two-thirds (68%) of all dollar stores are located within 3 miles of an RMP facility.



Cancer Risk from Air Pollution



Residents in Fenceline Zones

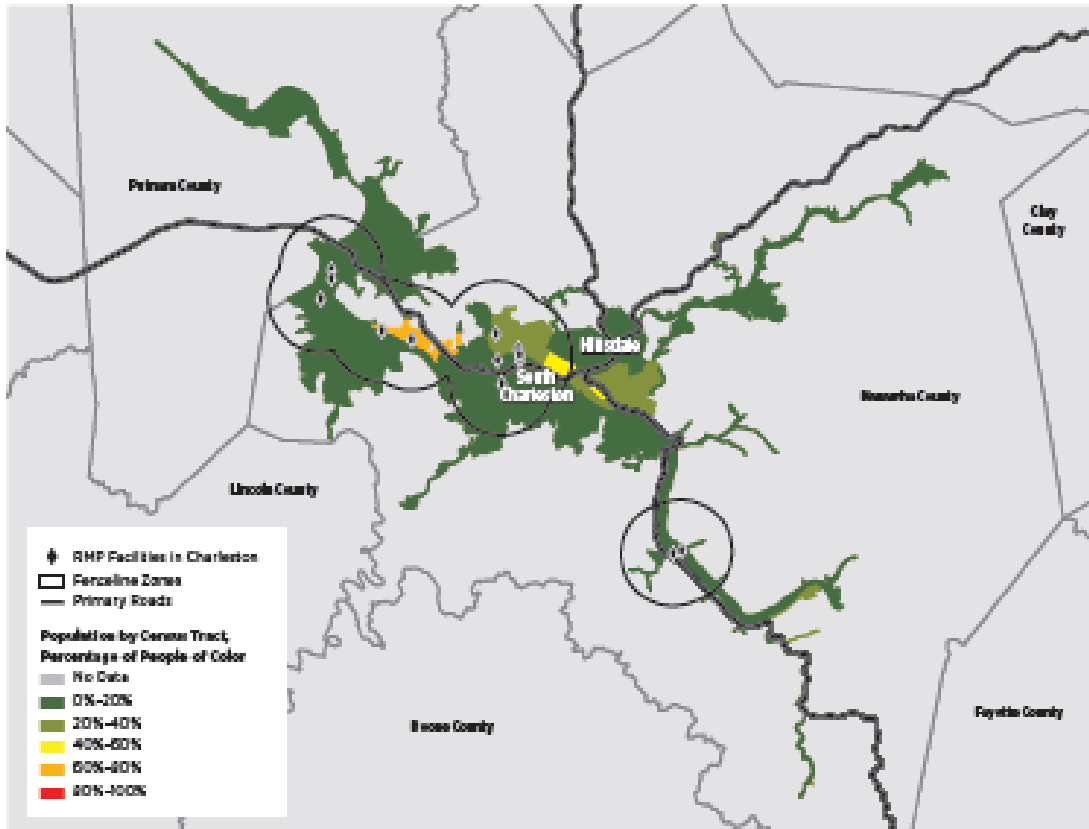


70% OF THE POPULATION OF
the Charleston Urban Area lives within
3 miles of an RMP facility.

Left: This rail car at the Axtil chemical facility in New Martinsville, WV released 90 tons of toxic chlorine gas in 2016.

Hazardous Facilities and Race in Charleston

For additional maps and other information about Charleston, visit <https://ej4all.org/life-at-the-fenceline>.



Charleston Data Summary

	Charleston Totals	Charleston 3 Mile Totals	Charleston 3 Mile LILA* Totals
Weighted Cancer	50.83	52.04	54.01
Weighted RHI	2.39	2.26	2.40
Percent Black	6.0%	6.3%	10.0%
Percent Hispanic	11%	0.0%	0.0%
Percent White	86.5%	86.8%	80.1%
Percent Children	19.7%	20.5%	19.9%
Percent Poverty	15.7%	15.6%	22.5%
Average Household Income	\$65,555	\$61,227	\$47,166
Average Home Value	\$145,940	\$132,790	\$97,039
Percent HS Graduate or Less	41.7%	43.6%	52.8%
Percent College Degree or More	26.7%	25.3%	15.2%

* LILA—Areas with Low-income populations with Low Access to healthy foods (see Box 3 on p.13)
 Note: Highlighted numbers indicate a substantial difference from the full city or county and the full 3-mile areas data.

CHAPTER FOUR CONCLUSIONS

The findings of this report demonstrate that the health and safety of communities closest to some of the nation's most dangerous industrial and commercial facilities are at risk from multiple threats, including potential chemical releases or explosions, daily exposure to toxic air pollution, and poor nutrition from a lack of access to healthy foods (along with other hazards and impacts not specifically studied here). The population of these "fenceline" areas is disproportionately Black, Latino, and living in poverty. Many of these communities also rely heavily, or solely, on dollar stores for household necessities and in some cases food, making these retailers potential sources of either additional toxic exposures or safer products and healthier foods (depending on the corporate policies they implement or fail to adopt).

All of the areas researched for this report face serious health risks from hazardous chemical facilities, toxic air pollution, and lack of access to healthy food. The 9 cities or counties researched for this report contain significant concentrations of industrial and commercial facilities that use or store highly hazardous chemicals, creating the constant threat of a catastrophic chemical release or explosion. The risk of cancer from toxic air pollution is greater than the national rate in all 9 areas, and the potential for respiratory illness from air pollution is substantial in all 9 areas. The percentage of city or county residents living in Low-Income areas that also have Low Access to healthy foods (LILA areas) is higher than for the US as a whole in all 9 areas, and is twice as high or greater in 5 of the 9 areas.

Fenceline zones around hazardous facilities in these areas are disproportionately Black, Latino, and impoverished. The percentage of Blacks or Latinos living within 3 miles of an RMP facility was higher than for the entire area in every study area, and often much higher than for the US as a whole. In 7 of the 9 areas researched, the

THE FINDINGS OF THIS REPORT

demonstrate that the health and safety of communities closest to some of the nation's most dangerous industrial and commercial facilities are at risk from multiple threats, including potential chemical releases or explosions, daily exposure to toxic air pollution, and poor nutrition from a lack of access to healthy foods.

percentage of people living in poverty within 3 miles of an RMP facility is higher than for those living in poverty in the entire area, and often much higher than for the US as a whole.

People living in hazardous facility fenceline zones face multiple health hazards and risks. In 7 of the 9 areas researched for this report, two-thirds or more of the population live in fenceline zones around highly hazardous industrial or commercial facilities (much higher than the national rate of 39%). In all of the areas researched for this report, fenceline zones face higher risk of cancer from toxic air pollution than the entire city or county, and in 8 of the 9 areas the potential for respiratory illness is higher in fenceline zones. From 26% to 54% of the population of fenceline zones also live in low-income/low food access areas (compared to only 18% of the US population).

Some neighborhoods are even more heavily and disproportionately impacted. In 8 of the 9 areas studied, 71% to 100% of people who live in low-income areas that also have low access to healthy foods also live within a

hazardous facility fence-line zone. In every area studied, low-income/low food access areas within fence-line zones have higher poverty rates, greater percentages of residents who are people of color, and higher cancer risks and potential for respiratory illnesses from toxic air pollution than for the whole fence-line zones or the entire city or county, often much higher.

Action to address these hazards is urgently needed.

Significant and rapid improvements in public laws and regulations at the national, state, and municipal levels, and in corporate policies and practices, are urgently needed to protect the health and wellbeing of at-risk communities in the 9 areas we researched and elsewhere. The commonsense solutions identified below can address the cumulative health and safety risks to fence-line communities discussed in this report, including chemical facility disasters, chronic exposure to toxic air pollution, and toxic chemicals in household products.

RECOMMENDATIONS AND SOLUTIONS

The first four recommendations and proposed solutions that follow aim to improve the safety of high-risk industrial facilities, expand communities' access to information

about the hazards posed by nearby facilities, and improve community preparedness for responding to a toxic chemical release. They may have the additional benefit of reducing the daily load of toxic air pollution that affects these communities. The last three recommendations and proposed solutions address both the acute risks from unplanned chemical releases and the risks from daily chronic exposure to toxic air pollution, as well as exposure to toxic chemicals from dollar store products.

1. Ensure that facilities that use or store hazardous chemicals adopt safer chemicals and processes.

Switching to inherently safer chemicals and technologies—which removes underlying hazards—is the most effective way to prevent deaths and injuries from chemical disasters (as well as eliminate ongoing emissions of the replaced chemicals). Companies should seek out and adopt safer alternatives when possible. Government at all levels should require hazardous industrial and commercial facilities to assess whether they could use safer chemicals or processes, and adopt them whenever feasible, using the methods and systems already widely available.



2. **Ensure that facilities share information on hazards and solutions, and emergency response plans, with fenceline communities and workers.** Facility employees and fenceline communities can only participate effectively in their own protection if they have full access to information and meaningful access to decision-making processes. Federal, state, and local authorities should ensure that communities have access to information on hazards and emergency planning conducted under federal and state programs, and that they have information on facility hazards submitted to states under the Emergency Planning and Community Right-to-Know Act. Local residents, trained health care professionals, emergency responders, and health-care providers need this information to prepare for and effectively respond to chemical releases and explosions. Communities should be included in emergency response planning and implementation.
3. **Require large chemical facilities to continuously monitor, report and reduce their fenceline-area emissions and health hazards.** Unplanned, smaller releases of toxic chemicals often precede more serious incidents at chemical facilities and may themselves directly impact the health of people living in nearby communities. Fenceline community residents should be able to easily access information (based on continuous monitoring that is independently validated) on emissions coming from facilities that use or release hazardous chemicals, along with information about the chemicals' health hazards, and be easily able to participate in and act on response measures. The EPA should expand current requirements for benzene monitoring by oil refineries to include other toxic air pollutants and require air emissions monitoring at other types of major industrial facilities. This information will allow communities to understand hazards and participate in shaping solutions.
4. **Prevent the construction of new or expanded chemical facilities near homes and schools, or the siting of new homes and schools near facilities that use or store hazardous chemicals.** The siting of new facilities that use or store hazardous chemicals, or expansion of existing ones, near homes, schools, or playgrounds significantly increases the possibility that an unplanned chemical release will result in a disaster. Similarly, new homes, schools, and playgrounds should not be sited near hazardous facilities. Municipal authorities should

adopt and enforce local ordinances that require an assessment of the potential health and safety risks when siting homes, schools, and other public facilities. Authorities at all levels should reject new or expansion requests whenever there will not be an adequate safety buffer zone between the facility and homes, schools, or playgrounds. Requiring a buffer zone between these areas and polluting sources may also reduce residents' daily exposure to toxic chemical pollution.

5. **Require publicly accessible, formal health-impact assessments and mitigation plans to gauge the cumulative impact of hazardous chemical exposures on fenceline communities.** Federal and state agencies should assess the potential impact of unplanned chemical releases and the cumulative impacts of daily air-pollution exposures on the health of fenceline communities. Agencies and elected officials should provide affected communities with the tools and resources they need to fully engage in the assessment process, and the EPA should review hazard assessments of these communities. Permits for ongoing emissions should be strengthened where necessary to account for the cumulative impact of air pollution emissions from multiple sources on fenceline communities, and emissions limits should fully protect public health, including especially vulnerable populations such as the elderly, children, people with disabilities, and people with existing health conditions.

FEDERAL AND STATE AGENCIES

should assess the potential impact of unplanned chemical releases and the cumulative impacts of daily air-pollution exposures on the health of fenceline communities. Agencies and elected officials should provide affected communities with the tools and resources they need to fully engage in the assessment process, and the EPA should review hazard assessments of these communities.



Communities like Houston (pictured above) face multiple health and environmental hazards and need solutions.

- 6. Strengthen the enforcement of existing environmental and workplace health and safety regulations.** Congress should increase funding to the EPA, the Occupational Health and Safety Administration (OSHA), and the states for expanding inspections and improving the enforcement of environmental and workplace health and safety laws, so that problems in chemical facilities can be identified before they lead to disasters. Better oversight and enforcement will also help agencies and the public hold companies accountable if they fail to address identified hazards and emissions of toxic pollution. Communities that face some of the greatest threats from chemical facility incidents, toxic air pollution and contaminated sites need strong governmental policies to protect them, including strict permitting requirements and reliable inspection and enforcement of these requirements. If state and municipal governments are not providing adequate protection, it is essential that the EPA engage to defend these communities' right to a safe environment.
- 7. Dollar store chains should develop and implement broad policies to identify and remove hazardous chemicals from the products they sell, stock fresh**

and healthy foods, and source safer products and foods locally and regionally. Given their presence in many communities of color and low-income fence-line communities, the largest dollar store chains are in a unique position to benefit the health and welfare of these communities where they operate, while growing and benefiting their own businesses, by providing safer products and healthier foods. Dollar Tree should fully disclose, and publicly report progress on, its positive action already underway to phase out seventeen toxic chemicals by 2020.⁶³ All the dollar store chains should adopt broad and transparent chemical management policies (including public reporting and continuous improvement) to identify and remove hazardous chemicals from all products in their stores, beginning with their house brands, and stock healthier foods including more fresh produce. They should source safer products and healthier foods locally and regionally whenever possible, to reduce climate change impacts from long-distance transportation, and to support the communities in which their stores operate. Agencies at all levels of government should ensure that discount retailers comply with all relevant laws and regulations, and provide technical assistance to support these transitions.

APPENDIX A METHODOLOGY

DATA COLLECTION & MAPPING

The demographic data were obtained from the US Census Bureau's American Community Survey (ACS). The Census Bureau's advanced American FactFinder interface (Census Bureau 2011-2015, <https://factfinder.census.gov/faces/main/jsf/pages/index.xhtml>) was used to create tables of the data at the census tract level. This database is updated annually and summarized into one, three and five year spans. Per the recommendation of the Census Bureau (<https://www.census.gov/programs-surveys/acs/guidance/estimates.html>), the most recent 5-year span, 2011–2015, was selected.

Publicly available data from the Environmental Protection Agency's (EPA) Risk Management Program (RMP) as provided by the Right-to-Know Network (<http://rtk.net>) were used to determine the location of RMP facilities. Facilities were located based on their self-reported latitude/longitude codes. All other information about the facilities (e.g. number of accidents, number of injuries) was also obtained from the Right-to-Know Network's database and is self-reported by the facilities to EPA.

2011 National Air Toxics Assessment (NATA) cancer risk and respiratory hazard index data, as well as specific pollutant data, were obtained from the EPA's NATA website using the census tract identification (<https://www.epa.gov/national-air-toxics-assessment/2011-nata-assessment-results>). See below for a more detailed explanation of this data.

The location of discount retail stores (which are primarily operated by Dollar General and Dollar Tree (which also owns Family Dollar), referred to as "dollar stores" in the report, was purchased from AppData (www.appdata.com).

Low Income and Low Access (LILA) to healthy food data were obtained from the US Department of Agriculture's Economic Research Database (<https://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data>). 2011 data, the most recent version available at the time the data was accessed, was selected.

Medical facilities data were obtained from the Medicare.gov website (www.medicare.gov).

Public and private school data were downloaded from the US Department of Education National Center for Education Statistics (NCES) (<https://nces.ed.gov/ipeds/data/ipeds-tables.asp> public school data-national and <https://nces.ed.gov/ipeds/data/ipeds-tables.asp> private school data-national). The most recent data (2014-2015 school year for the public school data, 2011-2012 school year for the private school data) was selected for both datasets.

All boundaries were mapped using publicly available TIGER line files (2016) from the Census Bureau (<https://www.census.gov/geos/maps-data/data/tiger-cart-boundary.html>).

DEMOGRAPHIC CALCULATIONS AND DATA ON HEALTH RISKS AND HAZARDS

Demographics from the ACS for the census tracts were used as presented by Census. All NATA data were used as provided by EPA without further calculations.

We obtained cancer risk and respiratory hazard index data, as well as data on specific pollutants, from the 2011 National Air Toxics Assessment (NATA) using the census tract identification (EPA 2015). The 2011 NATA data, released in 2015, are the most recent available.

The NATA was developed primarily as a tool to inform both national and more localized efforts to collect air toxics information and characterize emissions (e.g., to prioritize pollutants or geographical areas of interest for more-refined data collection such as monitoring). The 2011 NATA dataset is based on data for 140 toxic air pollutants from a broad spectrum of sources including large industrial facilities, such as refineries and power plants, and smaller sources, such as gas stations, oil and gas wells, and chrome-plating operations. Other pollution sources include cars, trucks, and off-road sources such as construction equipment and trains, as well as pollution formed by chemical reactions of these emissions in the atmosphere. The numbers calculated by the EPA are intended to reflect toxic air pollution-related health hazards that are, in principle, controllable through better management practices by emitters.

What the Numbers Mean: How Cancer Risk and Respiratory Health Hazards Were Calculated

The EPA calculates the amount of toxic air pollution faced by people at the census-tract level and uses health benchmarks to estimate cancer risks and the potential for respiratory health hazards from the combined effect of those exposures. Health risks and health hazards are distinct measures (see below), but both reflect the negative impacts on communities from exposure to toxic industrial facilities located near schools and homes.

The EPA generates data on the health risks from toxic air pollution using emission reports from industry and pollution dispersion models, combined with data from a limited number of pollution-monitoring stations. **Cancer risks** are expressed as the projected number of air pollution-related cancers per million people based on a 70-year lifetime of exposure. The EPA estimates that the national average risk of cancer from a lifetime of exposure to toxic air pollution at 2011 levels is 40 cancers per million people (EPA, n.d.). For comparison, when the EPA sets national toxic air pollution standards for industrial sources, its cancer risk target for the general population is one in one million (EPA 1999).

The **respiratory hazard index**, in contrast, does not speak to a direct effect on human health but rather is a measure of the amount of the hazardous substance in the environment (which, of course, has important effects on human health) compared to a health metric. The respiratory hazard index is the ratio of existing pollutant levels to levels established by the EPA as not likely to cause non-cancer respiratory illnesses based on a lifetime of exposure. If an existing pollutant level is the same as the non-concerning benchmark, the ratio is 1. An index value greater than 1 indicates the potential for adverse respiratory health impacts, with increasing concern as the value increases above 1.

Both health measures are based on a combination of monitored and modeled data and thus are estimates of average risks and hazards affecting a community rather than exact risks or hazards for a particular person. The lower the cancer risk and respiratory hazard index values, the lower the overall cancer risk and potential for respiratory illness. However, many other factors determine any given person's health; therefore, even relatively low values must be considered with caution.

Additional Risks Not Captured in This Analysis

NATA's estimates include only chronic cancer risks for air toxics that the EPA is currently able to identify and quantify. Therefore, these risk estimates represent only a subset of the total potential cancer risk associated with air toxics exposures. Importantly, these risk estimates do not consider additional exposure pathways such as ingestion of toxic chemicals from foods or water, or breathing toxic air pollution from indoor sources, nor do they take into account the potential for combined or synergistic impacts from exposure to multiple chemicals. In addition, while the NATA risk data are based on exposure to outdoor air pollution, urban outdoor air pollution can also be an important contributor to indoor air quality, especially in highly ventilated homes or in homes near pollution sources (World Health Organization, http://www.who.int/phe/health_topics/outdoorair/databases/background_information/en).

APPENDIX B
SUMMARY DATA TABLES

	Albuquerque Totals/ 3 miles/3 miles LILA	Charleston Totals/ 3 miles/3 miles LILA	Dallas Totals/ 3 miles/3 miles LILA	Houston Totals/ 3 miles/3 miles LILA
Weighted RHI	1.74/1.86/2.17	2.39/2.26/2.40	2.37/2.40/2.48	2.09/2.13/2.29
Weighted Cancer	38.25/39.45/41.91	50.83/52.04/54.01	46.25/46.58/47.67	44.74/45.57/47.26
% Poverty	18.4/18.4/28.0	15.7/15.6/22.5	16.3/17.7/27.2	17.2/18.4/28.5
% White	41.5/40.1/26.3	86.5/86.8/80.1	42.4/40.8/22.5	32.9/30.6/12.1
% Black	2.6/2.5/2.9	6.0/6.3/10.0	17.3/16.5/21.7	18.6/19.5/25.5
% Hispanic	48.4/50.1/64.0	1.1/0.9/0.9	31.5/34.7/51.0	39.0/40.2/56.1
% Children	23.3/23.0/24.3	19.7/20.5/19.9	26.9/26.9/29.4	27.1/26.7/28.8
Avg Home Value	209,745/219,400/ 150,054	145,940/132,790/ 97,039	204,060/189,682/ 114,414	197,888/201,040/ 105,512
Avg Household Income	65,170/65,970/47,908	65,555/61,227/47,166	80,130/74,771/49,036	82,920/80,522/48,832
% HS or Less	36.2/37.4/50.2	41.7/43.6/52.8	39.5/42.6/60.7	42.1/43.2/61.6
% 4 Year or More Degree	29.4/29.6/18.9	26.7/25.3/16.2	30.6/28.1/14.4	28.8/28.1/13.9

	Fresno Totals/ 3 miles/ 3 miles LILA	Kern Totals/ 3 miles/ 3 miles LILA	Madera Totals/ 3 miles/ 3 miles LILA	Los Angeles Totals/3 miles/ 3 miles LILA	Louisville Totals/ 3 miles/3 miles LILA
Weighted RHI	2.06/2.19/2.37	1.91/2.07/2.24	1.56/2.07/2.11	2.59/2.63/2.83	2.26/2.37/2.46
Weighted Cancer	48.62/50.57/52.02	45.69/48.20/49.60	46.37/56.32/57.27	50.17/50.22/52.06	47.35/48.85/50.86
% Poverty	27.6/29.4/37.8	23.4/24.7/34.1	22.3/28.6/35.2	17.6/18.6/24.8	16.0/19.6/31.1
% White	31.3/27.8/17.9	37.1/34.1/23.5	38.3/22.5/17.0	27.9/23.4/11.0	72.8/67.5/49.1
% Black	4.8/4.9/6.2	5.3/6.0/5.8	3.3/2.8/2.5	6.6/6.8/9.5	17.8/22.5/39.3
% Hispanic	51.7/54.2/63.4	50.6/52.6/65.3	52.8/70.0/75.8	47.3/52.4/67.4	4.5/4.8/6.1
% Children	29.0/29.8/31.6	29.3/29.9/32.6	27.4/32.1/34.5	23.1/24.0/26.9	22.6/22.3/23.9
Avg Home Value	221,576/206,867/ 155,918	188,274/183,073/ 136,360	242,651/186,986/ 154,031	550,046/475,194/ 314,249	181,660/170,253/ 103,050
Avg Household Income	62,411/59,806/ 44,332	65,432/63,516/ 46,082	63,832/52,779/ 42,043	83,392/76,452/ 53,876	66,720/60,889/ 39,452
% HS or Less	49.9/51.9/62.8	53.5/54.0/65.8	51.7/63.0/71.2	43.1/47.4/61.2	40.8/43.1/54.4
% 4 Year or More Degree	17.6/16.6/9.0	14.1/13.8/7.3	14.4/9.3/6.0	28.0/24.1/13.7	26.8/24.8/13.9

City/County Totals: Result for the entire city or county.
 3 miles: The Fenceline Zones within 3 miles of an RMP facility.
 3 miles LILA: Low Income and Low Access to food areas within Fenceline Zones.
 See Appendix A for explanations of RHI (Respiratory Hazard Index) and Cancer Risk.

APPENDIX C

LOCAL ORGANIZATIONS IN STUDY AREAS

These member organizations of the Environmental Justice Health Alliance for Chemical Policy Reform work to address the problems documented in this report in their communities, and implement safe, just, and sustainable solutions. You can also learn more about these and other members of EJHA at www.EJ4All.org.

In Albuquerque, NM, **Los Jardines Institute** (The Gardens Institute) works to build and support healthy and sustainable communities and spaces by providing opportunities that promote multi-generational, community-based models of learning, sharing, and building community. <https://www.losjardines.org>

In Charleston, WV, **People Concerned About Chemical Safety** (PCACS) promotes international human rights pertaining to environmental and chemical safety through education and advocacy, and serves as a watchdog to ensure existing chemical safety laws are upheld by facilities in our communities. <http://peopleconcernedaboutmic.com>

In Fresno County, Kern County, and Madera County, CA, **Lideres Campesinas** works to develop leadership among campesinas so that they serve as agents of political, social and economic change in the farmworker community. www.liderescampesinas.org

In Houston, TX, **Texas Environmental Justice Advocacy Services** (t.e.j.a.s.) works to promote environmental protection through education, policy development, community awareness, and legal action. Its guiding principle is that everyone, regardless of race or income, is entitled to live in a clean environment. www.tejabarristas.org

In Los Angeles, CA, **Physicians for Social Responsibility** (PSR-LA), a physician and health advocate membership organization, works to protect public health from environmental toxins and nuclear threats. It brings the voices of health experts to the forefront of critical policy discussions, and works alongside health professionals, advocates, and policymakers to create solutions that improve the health and environment for all Californians. <http://www.psr-la.org>

In Louisville, KY, **Rubbertown Emergency Action** (REACT) works for strong laws to stop toxic air pollution from chemical plants: the protection of residents in the event of a leak, fire or explosion in a chemical plant or railcar, and full disclosure and easy access to information concerning the impact of hazardous facilities on residents living nearby. On Facebook as *REACT Rubbertown Emergency ACTION* at <https://www.facebook.com/groups/317041690234>.

APPENDIX D GLOSSARY OF TERMS AND ABBREVIATIONS

Fenceline Zone

In this report, fenceline zones are a 3-mile radius around RMP facilities (see more on RMP below), in which those affected are at most risk from a chemical release or explosion and least likely to be able to escape from a toxic or flammable chemical emergency, but not representing the outer bounds of potential harm. For example, while the fenceline zone around a facility is 3 miles in radius, the full vulnerability zone for a worst-case chemical release may be as large as 25 miles in radius. See Figure 3 on page 11 for a graphic representation of a sample vulnerability zone and fenceline zone.

Hazardous Facility or High-Risk Facility

In this report, hazardous facility or high-risk facility refers to Risk Management Plan (RMP) facilities, which are defined below. Only facilities that use or store significant quantities of specific highly toxic or flammable chemicals are part of the US Environmental Protection Agency's RMP program. Many different types of industrial and commercial facilities—ranging from chemical manufacturing plants, oil refineries, and paper mills, to water treatment plants, food manufacturing and storage facilities, fertilizer distributors, and more—are included in the RMP program, which currently covers approximately 12,500 facilities. A worst-case chemical release at many of these facilities could endanger several million people over a radius as great as twenty-five miles.

LILA Area

LILA stands for Low Income and Low Access to healthy foods. As the term is used by the US Department of Agriculture, and as we have used it in the research and findings for this report, low-income areas have poverty rates of 20% or greater (or meet other criteria), and low access to healthy food means being far from a supermarket, supercenter, or large grocery store. More background on LILA areas can be found at <https://www.ers.usda.gov/data-products/food-access-research-areas/documentation>.

RMP

RMP refers to Risk Management Plan, a plan prepared under the chemical incident prevention provisions of the Clean Air Act, section 112(r), and submitted to the US Environmental Protection Agency by a facility that produces, handles, processes, distributes, or stores more than a threshold amount of certain extremely hazardous substances (77 toxic or 63 flammable chemicals).

Vulnerability Zone

An estimate made by a facility under EPA's Risk Management Plan program of the maximum possible area where people could be harmed by a worst-case release of certain toxic or flammable chemicals. The vulnerability zone is a radius (or circle) distance around the facility, of—for example—one mile, five miles, or 20 miles in all directions.

Worst-Case Scenario

An estimate made by a facility under EPA's Risk Management Plan program of the largest potential chemical release from a single vessel or process under conditions that result in the maximum possible affected area.

APPENDIX E ONLINE RESOURCES

Many additional resources—including additional maps, community fact sheets, and data—are available on the Life at the Fenceline project home page at www.ejhall.org/life-at-the-fenceline.

The project pages online include:

- This full report
- Fact sheets about the study areas with more maps and information
- An interactive map of the US and all nine study areas
- Additional resources and data

Other resources on chemical facility hazards and disproportionate impacts

Who's in Danger: Race, Poverty, and Chemical Disasters (Environmental Justice Health Alliance for Chemical Policy Reform, May 2014) <https://comingcleantnc.org/whos-new/whos-in-danger-report>

Living in the Shadow of Danger: Poverty, Race, and Unequal Chemical Facility Hazards (Center for Effective Government, January 2016)

- Full report: <https://www.foreffectivegov.org/shadow-of-danger>
- State scorecards: <https://www.foreffectivegov.org/shadow-of-danger-factsheets>

Blowing Smoke: Chemical Companies Say "Trust Us," But Environmental and Workplace Safety Violations Belie Their Rhetoric (Center for Effective Government, October 2015) <https://www.foreffectivegov.org/blowing-smoke>

ENDNOTES

- 1 Moore D. Unpublished data. 2016.
- 2 Environmental Justice and Health Alliance for Chemical Policy Reform. *Who's in Danger: Race, Poverty, and Chemical Disasters*. May 2014.
- 3 Center for Effective Government. *Living in the Shadow of Danger*. January 2016. Washington, D.C.
- 4 Morello-Frosch R, Jesdale BM. "Separate and Unequal: Residential Segregation and Estimated Cancer Risks Associated with Ambient Air Toxics in U.S. Metropolitan Areas." *Environmental Health Perspectives* 114 (2006): 386-393.
- 5 Hynes, H.P., R. Lopez. "Cumulative risk and a call for action in environmental justice communities." *Journal of Health Disparities and Practice* 1(2) (2007):29-57.
- 6 Campaign for Healthier Solutions. *A Day Late and a Dollar Short: Discount Retailers Are Falling Behind on Safer Chemicals*. February 2015.
- 7 Bower KM, Thorpe JR Jr, Rohde C, and Gaskin DJ. "The intersection of neighborhood racial segregation, poverty, and urbanicity and its impact on food store availability in the United States." *Preventive Medicine* 58 (2014): 33-39.
- 8 Matison-Taig B. "Dollar stores open wallets for expansion." *Finance & Commerce* 10 July 2013. <http://finance-commerce.com/2013/07/dollar-stores-open-wallets-for-expansion>
- 9 U.S. Environmental Protection Agency National Environmental Justice Advisory Council. *Ensuring Risk Reduction in Communities with Multiple Stressors: Environmental Justice and Cumulative Risks/Impacts*. December 2004. Washington, D.C.
- 10 *Who's in Danger: Race, Poverty, and Chemical Disasters*. Op cit, pgs. 4-7.
- 11 Bullard RD, G.S. Johnson, A.D. Torres. *Environmental health and racial equity in the United States*. American Public Health Association. 2011. Washington, D.C.
- 12 Bullard RD et al. *Environmental Justice Milestones and Accomplishments: 1964-2014*. Barbara Jordan-Mickey Leland School of Public Affairs, Texas Southern University. February 2014.
- 13 Mohai, P., D. Pellow, J.T. Roberts. "Environmental Justice." *Annual Review of Environment and Resources* 34 (2009): 405-430.
- 14 Cushing L, R, Morello-Frosch, M. Wander, and M. Pastor. "The haves, the have-nots, and the health of everyone: The relationship between social inequality and environmental quality." *Annual Review of Public Health* 35 (2015):193-209.
- 15 Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations. 59 FR 32 (1994). Online at <https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf>
- 16 U.S. Environmental Protection Agency Office of the Inspector General. *Evaluation Report: EPA Needs to Consistently Implement the Intent of the Executive Order on Environmental Justice*. Report No. 2004-P-00007. March 1, 2004. Online at <https://www.epa.gov/sites/production/files/2015-10/documents/20040301-2004-p-00007.pdf>
- 17 U.S. Environmental Protection Agency. *Environmental Justice*. Online at www.epa.gov/environmentaljustice, accessed September 19, 2016.
- 18 U.S. Environmental Protection Agency. *EJ 2020 Glossary*. Online at <https://www.epa.gov/environmentaljustice/ej-2020-glossary>, accessed August 3, 2017.
- 19 U.S. Environmental Protection Agency. *EJ 2020 Fact Sheet*. Online at https://www.epa.gov/sites/production/files/2016-07/documents/ej_2020_factsheet_6-22-16.pdf, accessed August 3, 2017.
- 20 U.S. Office of the Surgeon General. 2009. *The Surgeon General's Call to Action to Promote Healthy Homes*. Chapter 2: The Connection Between Health and Homes. 2009. Rockville, MD. Available at <https://www.ncbi.nlm.nih.gov/books/NBK44199>
- 21 Evans GW, Kantrowitz E. "Socioeconomic status and health: the potential role of environmental risk exposure." *Annual Review of Public Health* 23 (2002): 303-331.
- 22 Foy KC, 2012. "Home is Where the Health Is: The Convergence of Environmental Justice, Affordable Housing, and Green Building." *Race Environmental Law Review* 30(1) (2012): 1-57.
- 23 See for example Wu F et al. "Improving Indoor Environmental Quality for Public Health: Impediments and Policy Recommendations." *Environmental Health Perspectives* 115 (2007): 953-965.
- 24 U.S. Environmental Protection Agency. "Regulatory Impact Analysis: Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r) (7)." February 24, 2016.
- 25 U.S. Environmental Protection Agency. *Public Comment on EPA's National Enforcement Initiatives for Fiscal Years 2017-2019*. 80 FR 5535, September 15, 2015. Available at: <https://www.federalregister.gov/articles/2015/09/15/2015-23056/public-comment-on-epas-national-enforcement-initiatives-for-fiscal-years-2017-2019>, see IV (3). Accessed September 21, 2016.

- 26 U.S. Environmental Protection Agency. "EPA Activities Under EO 13650: Proposed Changes to the Risk Management Program (RMP) Rule Questions & Answers." February 2016. Online at www.epa.gov/sites/production/files/2016-02/documents/rmp_proposed_rule_qs_and_as_2-26-16_removed_pub_number_fixed_date.pdf. Accessed September 21, 2016.
- 27 Marshall University Center for Business and Economic Research. "CBER Calculates Impact from Chemical Spill into Elk River." February 4, 2014.
- 28 U.S. Environmental Protection Agency. Final rule: Accidental release prevention requirements: Risk management programs under the Clean Air Act, section 112(r)(7). January 13, 2017. 82 FR 4294.
- 29 U.S. Environmental Protection Agency. Proposed rule: Accidental release prevention requirements: Risk management programs under the Clean Air Act; Further delay of effective date. April 3, 2017. 82 FR 16146. In August 2018, this delay was overturned by the federal court. As of publication of this report, EPA could still appeal the decision.
- 30 U.S. Environmental Protection Agency. Proposed Risk Management Program (RMP) Reconsideration Rule. May 17, 2018. <https://www.epa.gov/rmp/proposed-risk-management-program-rmp-reconsideration-rule>, accessed May 21, 2018.
- 31 U.S. Chemical Safety Board. Chevron Refinery Fire Final Report. 2015. <http://www.csb.gov/chevron-refinery-fire>. Accessed September 21, 2016.
- 32 U.S. Chemical Safety Board. "U.S. Chemical Safety Board Finds Multiple Safety Deficiencies Led to February 2015 Explosion and Serious Near Miss at the Exxon Mobil Refinery in Torrance, California." January 13, 2016. Available at <http://www.csb.gov/us-chemical-safety-board-finds-multiple-safety-deficiencies-led-to-february-2015-explosion-and-serious-near-miss-at-the-exxon-mobil-refinery-in-torrance-california>. Accessed October 3, 2016.
- 33 Chakraborty J. "Acute exposure to extremely hazardous substances: An analysis of environmental equity." *Risk Analysis* 21 (2001): 883–894.
- 34 Elliott HR, Wang Y, Lowe RA, Kleindorfer PR. "Environmental justice: frequency and severity of US chemical industry accidents and the socioeconomic status of surrounding communities." *Journal of Epidemiology and Community Health* 58(1) (2004): 24–30.
- 35 *Who's In Danger: Race, Poverty, and Chemical Disasters*. Op cit. pg. 3.
- 36 *Living in the Shadow of Danger: Poverty, Race, and Unequal Chemical Hazards*. Op Cit. pgs. 1-2.
- 37 Morello-Frosch R and Jaudale BM. 2006. Op.Cit.
- 38 Collins MB, Munoz I, Jaja J. "Linking 'toxic outliers' to environmental justice communities." *Environmental Research Letters* 11 (2016): 015004.
- 39 Apelberg BJ, Buckley TJ, White RH. "Socioeconomic and racial disparities in cancer risk from air toxics in Maryland." *Environmental Health Perspectives* 113 (2005): 693–699.
- 40 Morello-Frosch RA, Pastor M, Sadd J. "Environmental justice and southern California's 'rakacape': the distribution of air toxics exposures and health risks among diverse communities." *Urban Affairs Review* 36 (2001): 551–578.
- 41 Linder S.H, D. Marko, K. Sexton. "Cumulative cancer risk from air pollution in Houston: Disparities in risk burden and social disadvantage." *Environmental Science and Technology* 42(12) (2008): 4312–4322.
- 42 U.S. Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report. "QuickStats: Asthma Death Rates, by Race and Age Group—United States, 2007–2009." May 4, 2012. 61(17):35. <https://www.cdc.gov/mmwr/browse/mmwrhtml/mm6117a11.htm>. Accessed August 7, 2017.
- 43 Chakraborty J, Collins TW, Grineski SE, Montgomery MC, Hernandez M. "Comparing disproportionate exposure to acute and chronic pollution risks: A case study in Houston, Texas." *Risk Analysis* 34(7) (2014):2005–2020.
- 44 Union of Concerned Scientists and Texas Environmental Justice Advocacy Services. *Double Jeopardy in Houston: Acute and Chronic Chemical Exposures Pose Disproportionate Risks for Residents*. October 2016. Cambridge, MA/Houston, TX.
- 45 See for example Grossman E. "Chemical Exposure Linked to Billions in Health Care Costs." *National Geographic*. 5 March 2015. <http://news.nationalgeographic.com/news/2015/03/150305-chemicals-endocrine-disruptors-diabetes-toxic-environment-ngfood>. And Project TENDR. "Targeting Environmental Neuro-Developmental Risks. The TENDR Consensus Statement." *Environmental Health Perspectives* 124 (2016):A18–A24.
- 46 AggData. 2016.
- 47 Walmart. Policy on Sustainable Chemistry in Consumables. 2015. http://az204679.vo.msecnd.net/imedia/documents/wmi-chemical-policy_130234693942885792.pdf. Accessed September 26, 2016.
- 48 Target. Target Sustainable Product Standard. 2015. https://corporate.target.com/_media/TargetCorp/csr/pdf/Target-Sustainable-Product-Standard-1.pdf. Accessed September 26, 2016.
- 49 Toxics in Packaging Clearinghouse. *An Assessment of Heavy Metals in Packaging: A Focus on Flexible PVC from Discount Retail Chain Stores*. 2012.
- 50 *A Day Late and a Dollar Short: Discount Retailers Are Falling Behind on Safer Chemicals*. Op.Cit. pg. 3.
- 51 U.S. Department of Agriculture. Food Access Research Atlas. <http://wwwers.usda.gov/data-products/food-access-research-atlas/documentation.aspx>. Accessed September 30, 2016.
- 52 Larson NI, Story MT, Nelson MC. "Neighborhood Environments Disparities in Access to Healthy Foods in the U.S." *American Journal of Preventive Medicine* 36(1) (2009): 74–81.
- 53 Horowitz CR, Colson KA, Haber PL, Lancaster K. "Barriers to buying healthy foods for people with diabetes: evidence of environmental disparities." *American Journal of Public Health* 94(9) (2004): 1549–1554.

- 54 Baker EA, Schootman M, Barnidge E, Kelly C. "The role of race and poverty in access to foods that enable individuals to adhere to dietary guidelines." *Prevention of Chronic Diseases* 3(3) (2006): A76.
- 55 Seligman HK, Lamsia BA, Kushal MB. "Food Insecurity Is Associated with Chronic Disease among Low-Income NHANES Participants." *Journal of Nutrition* 140 (2010): 304-310.
- 56 American Cancer Society. *Obesity, Nutrition, Physical Activity and Cancer*. 2012.
- 57 U.S. Centers for Disease Control and Prevention (CDC). "National Diabetes Fact Sheet, 2011." Available at http://www.cdc.gov/diabetes/pubs/pdf/natfs_2011.pdf. Accessed October 9, 2016.
- 58 Ogden C, Carroll MD, Kit, BK, Flegal KM. "Prevalence of Childhood and Adult Obesity in the United States, 2011-2012." *Journal of the American Medical Association* 311(8) (2014): 806-814.
- 59 Powell L, Slater S, Mirtcheva D, Bao Y, Chaloupka F. "Food store availability and neighborhood characteristics in the United States." *Preventive Medicine* 44 (2007): 189-95.
- 60 Hilmers A, Hilmers DC, and Dave J. "Neighborhood Disparities in Access to Healthy Foods and Their Effects on Environmental Justice." *American Journal of Public Health* 102(9) (2012): 1644-1654.
- 61 Farmworker Justice. *Exposed and Ignored*. Washington, DC. 2013.
- 62 Moore D. Unpublished data. 2016.
- 63 Ibid.
- 64 Ibid.
- 65 Pierceall K. "Dollar Tree says it's protecting consumers from toxic chemicals: Group wants proof." *The Virginian-Pilot*. 22 June 2017. https://pilotonline.com/business/consumer/dollar-tree-says-it-s-protecting-consumers-from-toxic-chemicals/article_36c93af5-54d7-5b54-b16a-91b88d00ea5.html. Accessed August 7, 2017.

PHOTO CREDITS

Cover: Global Community Monitor
Title page: Elizabeth Crowe
Table of contents
First: Creative Commons,5mi23le
Second: Eboni Cochran
Third: Elizabeth Crowe
Fourth: Joseluis Ortiz
Fifth: Creative Commons/Brett Cicotelli
page 1: Elizabeth Crowe
page 3: tejas
page 5: Elizabeth Crowe
page 7: Steve Taylor
page 9: Elizabeth Crowe
page 12: Joaquin Sánchez
page 21: Global Community Monitor
page 22: Ana Mascareñas
page 24: Lideres Campesinas
page 32: Steve Taylor
page 34: Creative Commons/steevithak
page 36: Bryan Parras
page 38: National Transportation Safety Board
page 41: Los Jardines Institute
page 43: tejas
Back cover: Hilton Kelly, CIDA

LIFE AT THE FENCELINE

Understanding Cumulative Health Hazards in Environmental Justice Communities



Across the United States, the health and safety of people who live, work, play, and learn near thousands of industrial and commercial facilities that use or store extremely dangerous chemicals is at risk of a major chemical release or explosion at any time. New research presented in this report studied who lives in the “fence-line” zones nearest high-risk facilities in nine Environmental Justice communities, what are the cancer risks and respiratory hazard from toxic air pollution in these areas, whether these communities have access to healthy foods, and where critical institutions (schools, hospitals, and dollar stores) are located.

The results find that the health and safety of communities closest to some of the nation’s most dangerous industrial and commercial facilities are at risk from multiple threats, including potential chemical releases or explosions, daily exposure to toxic air pollution, and poor nutrition from a lack of access to healthy foods (along with other hazards and impacts not specifically studied here). The population of these fence-line areas is disproportionately Black, Latino, and living in poverty. Many of these communities also rely heavily or solely, on dollar stores for household necessities and in some cases food, making these retailers potential sources of either additional toxic exposures or safer products and healthier foods (depending on the corporate policies they implement or fail to adopt).

WWW.EJ4ALL.ORG/LIFE-AT-THE-FENCELINE

28 VERNON STREET, SUITE 434, BRATTLEBORO, VT 05301

Environmental Justice Health
Alliance for Chemical Policy Reform

coming clean

CAMPAIGN FOR
**Healthier
Solutions**



July 15, 2021

SUBMITTED VIA U.S. MAIL & EMAIL

U.S. Department of Health and Human Services
200 Independence Avenue, S.W.
Washington, D.C. 20201
xavier.becerra@hhs.gov

Administration for Children and Families
Office of Refugee Resettlement
330 C Street, S.W.
Washington, D.C. 20201
jooyeun.chang@acf.hhs.gov
cindy.huang@acf.hhs.gov

U.S. Department of Defense
1400 Defense Pentagon
Washington, DC 20301-1400

U.S. Department of the Army
101 Army Pentagon
Washington, DC 20310-0101
christine.wormuth@us.army.mil

RE: Demand for Closure of the Fort Bliss Army Base Emergency Intake Site and Immediate Need for Environmental Testing and Health Risk Assessment

Dear Secretary Becerra, Acting Assistant Secretary Chang, Director Huang, Secretary Austin, and Secretary Wormuth:

Earthjustice, in coordination with our clients Hispanic Federation, Alianza Nacional de Campesinas, GreenLatinos, and Labor Council for Latin American Advancement, submit this letter calling for the immediate closure of the migrant child detention center located on the Fort Bliss Army Base in El Paso, Texas. We are alarmed by the growing number of reports of dangerous and unsafe conditions for children at Fort Bliss¹ and other emergency intake shelters and join the call for HHS and the Biden administration to close the shelter and ensure that children are never again held in these types of conditions.

¹ Julia Ainsley, NBC News, *Whistleblowers Allege Poor Care for Migrant Kids by Contractor Specializing in Disaster Cleanup* (July 7, 2021, 4:30 AM EDT), <https://www.nbcnews.com/news/amp/ncna1273124>; Government Accountability Project, *[Updated] Press Release: Whistleblowers' Complaints of Gross Mismanagement at Fort Bliss Immigrant Children's Site Ignored* (July 7, 2021), <https://whistleblower.org/press-release/press-release-whistleblowers-complaints-of-gross-mismanagement-at-fort-bliss-immigrant-childrens-site-ignored/>.



We also request that the required environmental testing, investigation, and assessment of health risks at Fort Bliss be completed to determine the safety of this site as a shelter for any asylum seekers including migrant children. If such testing and assessment has been recently completed, the Biden administration must immediately release all relevant information to the public as required by law.

As summarized below, we are providing information related to the potential threats to the health and safety of the children currently being detained at Fort Bliss, even though this information has been previously provided to the Office of Refugee Resettlement and White House during the Biden administration. Earthjustice obtained this information on behalf of its clients through Freedom of Information Act (FOIA) litigation involving records related to a temporary migrant child detention center at Fort Bliss that was proposed, but never constructed, during the Trump administration.

In March 2021, the Biden administration constructed a temporary detention center for migrant children at Fort Bliss, which has detained up to approximately 4,300 children and reportedly has the potential to detain up to 10,000 children.² As detailed in reports published by Earthjustice, several locations at Fort Bliss are not suitable for residential purposes due to the United States Army's previous failure to take the necessary steps to ensure that the sites are free of toxic hazards.³

Despite these hazards and our best efforts to obtain information from the relevant agencies, we are not aware of where exactly the current detention center at Fort Bliss is located or any recent environmental testing at the site, nor are we aware of any assessment regarding the health risks and suitability of such a site for residential purposes for children. It is also unclear whether the Army prepared a new Environmental Assessment (EA) as required by the National Environmental Policy Act (NEPA)⁴ or relied on a previously prepared EA from 2012 that involved a completely different project of a significantly smaller scale, which was the plan for the site proposed during the Trump administration.⁵ Relying on an outdated EA for a different project of a significantly smaller scale is both inadequate and unlawful under NEPA. The Army must prepare a new, project-specific EA for the current site, if the agency has not already done so.

² See <https://www.elpasotimes.com/story/news/2021/05/27/migrant-children-shelter-el-paso-fort-bliss-conditions-unacceptable/7446897002/>; see also <https://abcnews.go.com/Health/covid-19-cases-unaccompanied-migrant-children-facilities-spark/story?id=76788478>.

³ Earthjustice, *Stopping Toxic Cages* (Nov. 21, 2019), <https://earthjustice.org/features/migrant-children-detention-center-fort-bliss-documents>; Earthjustice, *Expert Report: November 2019*, https://earthjustice.org/sites/default/files/files/Fort-Bliss_Expert-Report_2019-11-18.pdf, attached.

⁴ Under NEPA, federal agencies are required to prepare an EA for any major federal action to assess the significance of the proposed action's effects on human health and the environment. 40 C.F.R. § 1501.5. If the EA finds that the proposed action significantly affects the quality of the human environment, the agency must then prepare an Environmental Impact Statement. *Id.* § 1502.4.

⁵ See *Stopping Toxic Cages*.



Until such time as a full investigation, environmental testing, risk assessment, and an environmental review that complies with NEPA have occurred to determine the suitability of the current site as a shelter for children, the Biden Administration must suspend indefinitely all operations of the detention center at Fort Bliss.

Earthjustice Investigation into Toxic Waste Sites at Fort Bliss

In June 2018, news reports indicated that the Department of Defense, at the direction of the Trump administration, was preparing to house approximately 20,000 migrants on military bases, including Fort Bliss, and that construction of tent encampments was to begin shortly.⁶

In response, Earthjustice, on behalf of its clients, submitted a FOIA request to the Army seeking several categories of records, including but not limited to, records concerning known or suspected toxic sites that have the potential to cause dangerous exposure to toxic chemicals via air, water, and soil to migrant adults and children detained at Fort Bliss and to workers constructing the detention camps. After the Army's failure to respond within timeframes mandated by FOIA, Earthjustice filed a FOIA lawsuit in the United States District Court for the Southern District of New York.

As detailed in the enclosed Earthjustice expert report analyzing the documents received through FOIA litigation, at least 80 contaminated sites have been identified at Fort Bliss. These sites are regulated under the Environmental Protection Agency's Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) hazardous waste cleanup programs.⁷ As listed in Army records from March 2002⁸, these sites at Fort Bliss include:

- 18 Landfills/Rubble Pits
- 3 Fire Training Areas
- 27 UST/Oil Pit Sites
- 4 Storage Areas
- 6 UXO/Detonation Areas
- 10 Illegal Dump Sites
- 6 Evaporation/Oxidation Ponds
- 6 others

Among these sites, contaminants include the following, at a minimum:

- Chlorinated volatile organic compounds
- Aromatic volatile organic compounds including benzene, toluene, ethyl benzene and xylenes

⁶ See <http://time.com/5324490/zero-tolerance-detention-centers-military/>; see also <https://wamu.org/story/18/06/28/military-bases-to-start-building-tents-after-july-4-to-house-migrant-families/>.

⁷ Earthjustice, Expert Report, at 3.

⁸ *Id.*



- Radioactive metals
- Asbestos
- Explosive compounds, including unexploded ordnance
- Per- and polyfluoroalkyl substances
- Semi-volatile organic compounds
- Pesticides and herbicides

Exposure to these hazardous chemicals in isolation can lead to deleterious health effects like cancer, neurological damage, and injury to major human organs. Children face an even greater risk of harm from these chemicals because they are undergoing critical periods of rapid growth and development that make them more sensitive to even low levels of chemical exposures and more likely to suffer irreversible harm than adults. Given the sheer number of contaminated sites at Fort Bliss, it is likely that detainees would experience exposure to multiple hazardous chemicals simultaneously, compounding the risk of cumulative adverse health effects. Because several of the contaminated and unsafe areas at Fort Bliss have not yet been remediated, they are unfit for human residents, especially children.

Concerns About the Site Selected in 2018

The documents received through Earthjustice's FOIA litigation revealed that the area being proposed for the detention center, "Parcel 2," was very near an illegal dump and spill site known as the Rubble Dump and Spill Site or simply the Rubble Dump Site.⁹ Testing at this site conducted prior to the Army's attempted cleanup efforts in the late-1990s, revealed levels of cancer-causing chemicals in the soil at more than 460 times the level for cancer risk as determined by EPA.¹⁰ Despite these alarming levels, the Army did not adequately ensure that its eventual cleanup efforts at the site met the federal standards, and the cleanup validation sampling was incomplete, particularly for carcinogenic volatile organic compounds. Post-cleanup soil sampling by the Army at the Rubble Dump Site in 2000 and 2001 indicates that the soil still contains arsenic, a carcinogenic heavy metal that has been linked to lower IQ scores in children,¹¹ at levels at least 19 times the level for cancer risk for residential soils according to EPA.¹²

The Army has also failed to control access to the site to prevent known illegal dumping. Despite attempts to prevent further illegal dumping in 2001, the Army has observed unauthorized entry at nearby sites as recently as June 2018.¹³

Based on this information, the previously proposed site at Fort Bliss would clearly pose a substantial and imminent threat to the life or physical safety of those detained in and near the contaminated and impacted areas. Therefore, additional sampling and characterization of soil,

⁹ *Id.* at 1.

¹⁰ *Id.* at 4.

¹¹ See <https://www.atsdr.cdc.gov/toxprofiles/tp2.pdf>

¹² *Id.* at 5-6.

¹³ *Id.* at 7.



soil gas, and ambient air must be completed before the “Parcel 2” site can be deemed safe for residential purposes. If a different site was chosen for the current operations at Fort Bliss, the Army must still undertake a comprehensive environmental review of the site—as required by NEPA—and ensure that adequate testing has been conducted.

Until thorough testing, analysis, and any required cleanup of the current site at Fort Bliss is completed, children cannot be detained at Fort Bliss.

Obligations under the Flores Agreement

By law, HHS must provide care for each unaccompanied minor in its custody in the United States.¹⁴ The Flores Settlement Agreement sets forth that unaccompanied minors must be treated with dignity and respect and, if necessary, held in “safe and sanitary” facilities that take into account the “particular vulnerability of minors.”¹⁵ Furthermore, Section 7.5 of ORR’s policies for influx care facilities requires proper physical care and suitable living accommodations for unaccompanied minors in its custody, in compliance with state child welfare laws and state and local building, fire, health, and safety codes.¹⁶

A detention center located on or directly adjacent to hazardous, toxic waste sites, potentially impacting the facility’s water and air quality, likely does not meet the legal and agency-required standards of care for minors and is unsafe and unsuitable for detaining children. Community-based solutions that do not involve placing children on military sites or in detention-like settings should be immediately developed and implemented, but the health and safety of children in the custody of the federal government should never be in question. Until suitable housing for children under federal custody is found, the federal government retains the legal responsibility to keep them physically and emotionally safe. Providing such safety also means keeping children away from exposures to toxic chemicals that can have dire consequences on the children’s health.

While migrants remain locked up, immigrants and asylum seekers frequently endure horrific conditions, with sexual assault, violent abuse, and medical negligence commonplace. Stories of neglect, filth, and fear have been reported through firsthand as well as investigative accounts, corroborated by government oversight bodies. The COVID-19 pandemic has only further highlighted the dangers of detention, with illness sweeping through facilities and hundreds of cases reported at Fort Bliss.¹⁷ The Biden administration pledged to create a just and humane immigration system, yet in addition to the aforementioned concerns, confining migrants

¹⁴ See 6 U.S.C. § 279.

¹⁵ See Flores Settlement Agreement, *Flores v. Reno*, No. CV 85-4544-RJK(Px) (C.D. Cal. 1997) at 7 ¶ 12A.

¹⁶ As posted on the webpage for this policy provision, the ORR revised its policies in 2019, as required by the 2019 Emergency Supplemental Appropriations for Humanitarian Assistance and Security at the Southern Border Act, Pub. L. 116-26, which at Section 404 requires the standards of influx care facilities to generally be in keeping with the Flores Settlement Agreement. See ORR, Children Entering the United States Unaccompanied: Section 7, Policies for Influx Care Facilities, <https://www.acf.hhs.gov/orr/policy-guidance/children-entering-united-states-unaccompanied-section-7> (last visited July 14, 2021).

¹⁷ See Hilary Anderson, BBC News, ‘Heartbreaking’ Conditions in US Migrant Child Camp, (June 23, 2021) <https://www.bbc.com/news/world-us-canada-57561760>.



and legal asylum seekers in facilities on or near potentially toxic waste sites without regard to potential short- and long-term health impacts can now be added to the list.

We urge HHS and the Army to use their authorities to immediately close the migrant detention center at Fort Bliss and prioritize the use of community-based solutions. Failing that, at a minimum, HHS and the Army must immediately engage in federally required environmental review, which is required at all detention center sites, and testing to gather data and to assess whether the facility at Fort Bliss is in fact safe for children. If recent testing and assessment has been completed, the agencies must immediately release all relevant information to the public.

Sincerely,

Mychal R. Ozaeta
Earthjustice
707 Wilshire Blvd., Suite 4300
Los Angeles, CA 90017
(213) 766-1069
mozaeta@earthjustice.org

Melissa Legge
Earthjustice
48 Wall Street, 15th Fl.
New York, NY 10005
(212) 823-4978
mlegge@earthjustice.org

On behalf of Earthjustice, Hispanic Federation, Alianza Nacional de Campesinas, GreenLatinos, and Labor Council for Latin American Advancement

CC: Cecilia R. Martinez, Council on Environmental Quality
Corey F. Solow, Council on Environmental Quality
Karen L. Martin, U.S. Environmental Protection Agency
Paula Flores-Gregg, U.S. Environmental Protection Agency
George QE Ward, U.S. Environmental Protection Agency

Texas Commission on Environmental Quality, Public Interest Counsel
Texas Commission on Environmental Quality, Compliance and Enforcement



July 1, 2021

Submitted electronically to Martin.Karenik@epa.gov
Chairwoman Sylvia Orduño
National Environmental Justice Advisory Council
Office of Environmental Justice
U.S. Environmental Protection Agency [Mail Code 2201A]
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Chairwoman Orduño and Members of the National Environmental Justice Advisory Council:

On September 14, 2020, the former Administration's attack on our bedrock environmental law, the National Environmental Policy Act (NEPA), went into effect. The regulatory changes fast-track development projects at the expense of public comments and cumulative impacts analyses and are devastating for communities of color and low-income communities across the country. While the Biden Administration seeks to undo the damage done by the prior Administration and to ultimately improve NEPA, it will be critical that the voices represented by the members of the NEJAC be heard in the upcoming public processes. This letter seeks to update you on recent and upcoming rulemaking developments related to NEPA that you may wish to weigh in on.

1. **The Biden Administration extended agencies' timeline in which they must develop regulations complying with the Trump Administration NEPA regulations.**

The Trump Administration Council of Environmental Quality (CEQ) NEPA regulations required Federal agencies to modify their own NEPA regulations to reflect the changes in the Trump regulations by September 14, 2021. On June 29, 2021, the Biden Administration extended that deadline by two years, a decision that will allow the Biden Administration an opportunity to review the Trump CEQ NEPA regulations and to propose any necessary rollbacks or improvements to those regulations. This is a good first step to rescinding the Trump CEQ NEPA regulations.

2. **New NEPA regulations will likely be proposed in two phases in July 2021 and November 2021.**

The Biden Administration, through the Office of Management and Budget's spring regulatory agenda, announced it intends to publish a proposed rule in July 2021 to address "Phase 1" priority changes to the Trump CEQ NEPA regulations. These "Phase 1" priority changes aim to address the goals articulated in Executive Order 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, regarding protecting public health, tackling the climate crisis, and addressing environmental justice. In November 2021, the Biden Administration plans to publish a second proposed rule to address "Phase 2" broader changes to the Trump CEQ NEPA regulations to address the goals articulated in Executive Order 13990.

Given the NEJAC's past interest in NEPA and NEJAC members' firsthand experience with how NEPA directly impacts communities, we urge the NEJAC to review and weigh in on the proposed NEPA regulations. Legal and policy experts at Earthjustice stand ready to support NEJAC if it chooses to weigh in on NEPA regulations at this critical juncture.

Sincerely,

Jill Witkowski Heaps, jheaps@earthjustice.org
Kristen Boyles, kboyles@earthjustice.org
Raul Garcia, rgarcia@earthjustice.org
Stephen Schima, sschima@earthjustice.org



June 17, 2021

Submitted electronically to nejac@epa.gov
Chairperson Sylvia Orduño
National Environmental Justice Advisory Council
Office of Environmental Justice
U.S. Environmental Protection Agency [Mail Code 2201A]
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Chair Orduño and Members of the National Environmental Justice Advisory Council:

This letter requests that the National Environmental Justice Advisory Council (“NEJAC”) help protect chemically overburdened communities by meeting with representatives from the Office of Chemical Safety and Pollution Prevention (“OCSPP”) and working with them to achieve EPA’s mandate of eliminating the unreasonable risks that communities across the country are facing because of their exposure to toxic chemicals. In 2016, Congress amended a largely ineffective Toxic Substances Control Act (“TSCA”) and established a new mandatory process to systematically evaluate and manage chemical risks. The amended law requires EPA to evaluate chemicals’ risks to “potentially exposed or susceptible subpopulations,” groups that face greater risks than the general public, and then to issue regulations that eliminate any unreasonable risks. We believe that if the new statute were implemented correctly, it would provide important benefits for communities and populations that are most exposed or most susceptible to toxic chemicals. However, recent statements made by EPA suggest that EPA may define potentially exposed and susceptible populations too narrowly, a decision which would violate the letter and spirit of the law. For this reason, we ask the NEJAC 1) to urge OCSPP to consider a broad range of communities as potentially exposed and susceptible subpopulations and 2) to consult with the NEJAC and other environmental justice groups when determining how to evaluate risks to those communities.

1. TSCA mandates a comprehensive review of a chemical’s exposures and risks.

The risk evaluation process has three steps. Step one is prioritization, where EPA chooses batches of “high-priority” chemicals. 15 U.S.C. § 2605(b)(1)(B)(i). Step two is risk evaluation, during which EPA comprehensively evaluates a chemical’s exposures and risks and determines whether the chemical substance presents or will present an unreasonable risk of injury, without consideration of costs. *Id.* § 2605(b)(4)(A). The final step, risk management, requires EPA to impose restrictions to eliminate unreasonable risk. *Id.* § 2605(a).

EPA was required to skip over the lengthy prioritization phase for the first ten chemicals set for evaluation, which the Agency selected without a transparent process. The risk evaluations for these first ten chemicals have now been completed, and many of these completed risk

NORTHEAST 48 WALL STREET, 35TH FLOOR NEW YORK, NY 10005

T: 212.945.7376 F: 212.918.1556 [NEOFFICE@EARTHJUSTICE.ORG](mailto:neoffice@earthjustice.org) WWW.EARTHJUSTICE.ORG

evaluations are currently being challenged in court in part for failing to sufficiently protect chemically overburdened communities.

EPA is currently developing rules to address the unreasonable risks presented by each of the first ten chemicals through the risk management process. EPA is conducting environmental justice consultation sessions related to those rules, and it must release proposed risk management rules for all 10 chemicals over the next six months, subject to limited statutory extensions. TSCA gives EPA broad authority to regulate the manufacture, processing, distribution, use, and disposal of chemicals, including releases that occur *after initial disposal* if the chemical is still resulting in exposure. This lifecycle-based review reflects TSCA's comprehensive approach to chemical risk management that considers the full extent of human or environmental exposure, including risks from chemical exposures that are or could be regulated under other laws.

In its risk evaluations, EPA must separately consider risks to "potentially exposed or susceptible subpopulations," or groups that "due to either greater susceptibility or greater exposure" may face greater risks of harm than the general population from chemical exposures. *Id.* §§ 2605(b)(1)(A), 2602(12). If these subpopulations face unreasonable risk, EPA must regulate those risks, even if the risk to the general population is not unreasonable.

2. Current TSCA implementation ignores chemically overburdened communities.

The Trump administration unlawfully excluded from the first ten risk evaluations all consideration of the surrounding the facilities where the evaluated chemicals are manufactured, used, or released. To its credit, the current administration has expressed its intent to reconsider that exclusion and to evaluate risks to impacted communities. However, recent statements made by EPA raise questions about the scope of those new analyses and whether they too will fall short of TSCA's requirements. In a recently filed remand motion in a case challenging the risk evaluation for the toxic chemical methylene chloride, EPA stated that it might analyze the exposures to "fenceline communities" that are located "within 100 to 1,000 meters of a source or sources that emit methylene chloride." *See Resp'ts' Mot. for Voluntary Remand* at 12 (ECF No. 51-1), *Neighbors for Env't Justice v. EPA*, No. 20-73276, 20-72091 (9th Cir. July 16, 2020). If adopted, this narrow definition would improperly limit EPA's scope of review and could have a negative impact on how EPA will address the risks to exposed communities as the Agency transitions to developing risk management rules.

The effects of high-volume chemical facilities can be felt well beyond 1000 meters, and such a limiting definition would do real harm to highly industrial regions such as: the Greater Houston area; Port Arthur, Texas; Mossville, Louisiana and neighboring towns; and communities along the Mississippi River between Baton Rouge and New Orleans in the area known as Cancer Alley. Further information about how this lack of analysis is a detriment to these communities can be found at "Comments on Draft Scopes of the Risk Evaluations for the First Twenty High-Priority Substances under the Toxic Substances Control Act."¹

¹ Earthjustice et al., *Comments on Draft Scopes of the Risk Evaluations for the First Twenty High-Priority Substances under the Toxic Substances Control Act* (May 26, 2020), https://earthjustice.org/sites/default/files/files/20_05_26_tx_la_tscs_first_20_hp_appx_rfn.pdf

3. The NEJAC should support chemically overburdened communities by urging proper implementation of TSCA.

EPA continues to make determinations under TSCA that are not protective of human health, or the communities most greatly affected by toxic chemicals. We are asking that NEJAC work with us to make sure that EPA lives up to the mandates of TSCA. We ask that NEJAC:

- 1) Advise EPA's Office of Chemical Safety and Pollution Prevention to take a broad approach to how the Agency defines "potentially exposed and susceptible" under TSCA, reevaluate its definition of "fenceline communities" in consultation with the NEJAC and other environmental justice groups, and conduct separate analyses to determine if evaluated chemicals pose an unreasonable risk to communities.
- 2) We strongly urge NEJAC to form an internal TSCA working group to ensure constant communication with EPA and provide opportunities for strategic implementation of environmental justice throughout all stages of the risk evaluation process.

We also offer our team as a resource to the NEJAC related to any TSCA risk evaluation issues.

Respectfully submitted,



Lakendra S. Barajas
Earthjustice
48 Wall Street, 15th Floor
New York, New York
(212) 284-8025
lbarajas@earthjustice.org



Know your environment.
Protect your health.

July 1, 2021

The Environmental Working Group submits comments to the National Environmental Justice Advisory Council (NEJAC) public meeting on June 17, 2021.

Submitted orally at the public meeting on June 17, 2021 and via email to nejac@epa.gov on July 1, 2021.

The Environmental Working Group is a national environmental health nonprofit with offices in Washington, D.C., Minnesota and California.

EWG has been researching drinking water contaminants and advocating for better drinking water quality in the U.S for decades. Today, we wanted to voice our support for the council and emphasize a focus on the intersection of environmental justice and drinking water quality that is a concern in communities across the country.

Everyone should have access to affordable and safe drinking water in the U.S., regardless of the community where they live. But drinking water contamination and barriers to accessibility are exacerbated in rural areas, lower income localities, and communities of color. There is a vast gap, even for most regulated contaminants, between what is legally allowed in drinking water and what is protective of sensitive populations, such as pregnant women and children.

The most immediate solution for any family is to invest in a home water filter, but this is simply a Band-Aid on a bigger problem. Relying on home filtration to solve water quality issues increases the disparity among affected communities, where those who cannot afford home filters end up with drinking water that is a lower quality than that of the people who can. Safe water has become a privilege when it should be a right.

EWG's mission is to empower consumers to take civic action, but how do you apply pressure to the companies and organizations responsible for polluting of our drinking water?

For food, you can buy organic.

For personal care products, you can choose clean beauty.

What do we do about tap water?

Communal and national solutions are needed to improve water quality equitably across the U.S.

1436 U Street NW, Suite 100, Washington, DC 20009

p. 202.667.6982 | f. 202.232.2592

| ewg.org



Know your environment.
Protect your health.

EWG wants to voice its support for these focused work groups, especially NEJAC's work to identify barriers to environmental equity. EWG urges the council to continue considering equity in access to resources in its guidance to the EPA. This will ensure that the communities most in need receive the support they require to decrease the disparities in drinking water quality that exist among and within communities across the U.S. We recognize the council's important work on ongoing initiatives that are striving to achieve these goals.

Submitted on behalf of Environmental Working Group,

Sydney Evans
Science Analyst
Environmental Working Group
1250 I Street NW, Suite 1000
Washington, D.C. 20005

1436 U Street NW, Suite 100, Washington, DC 20009

p. 202.667.6982 | f. 202.232.2592

| ewg.org

ENVIRONMENTAL PERFORMANCE STANDARDS APRIL 6, 2017

For Massachusetts National Guard Properties at the Massachusetts Military Reservation

CAMP EDWARDS TRAINING AREA GENERAL PERFORMANCE STANDARDS

None of the following banned military training activities shall be allowed in the Camp Edwards Training Areas:

- Artillery live fire
- Mortar live fire
- Demolition live fire training
- Artillery bag burning
- Non-approved digging, deforestation or vegetation clearing
- Use of 'CS', riot control, or tear gas for training outside the NBC bunkers
- Use of field latrines with open bottoms
- Vehicle refueling outside designated Combat Service Area and Fuel Pad locations
- Field maintenance of vehicles above operator level

Limitations on the use of small arms ammunition and live weapon fire fall into the following two categories:

- Live weapon fire is prohibited outside of established small arms ranges. Live weapon fire is not allowed on established small arms ranges except in accordance with Environmental Performance Standard 19, other applicable Performance Standards, and a range-specific plan approved through the Environmental Management Commission (EMC).
- Blank ammunition for small arms and simulated munitions may be used in areas outside of the small arms ranges, using only blank ammunition and simulated munitions identified on an approved list of munitions. Joint review and approval for inclusion on the list shall be through by the Environmental & Readiness Center (E&RC) and the EMC.

Each user will be responsible for proper collection, management, and disposal of the wastes they generate, as well for reporting on these actions.

Use and application of hazardous materials or disposal of hazardous waste shall be prohibited except as described in the Groundwater Protection Policy.

Vehicles are only authorized to use the existing network of improved and unimproved roads, road shoulders, ranges and bivouac areas, except where necessary for land rehabilitation and management, water supply development, and remediation, or where roads are closed for land rehabilitation and management.

Protection and management of the groundwater resources in the Camp Edwards Training Area will focus on the following:

- Development of public and Massachusetts Military Reservation water supplies.
- Preservation and improvement of water quality and quantity (recharge).

- Activities compatible with the need to preserve and develop the groundwater resources.

All users of the Camp Edwards Training Area must comply with the provisions of the Groundwater Protection Policy and any future amendments or revisions to the restrictions and requirements. These will apply to all uses and activities within the overlays relative to Wellhead Protection, Zone II's within the Containment Area, and the Camp Edwards Training Area.

Development of water supplies will be permitted within the Camp Edwards Training Area after review and approval by the managing agencies, principally the Department of the Army and its divisions, together with the Massachusetts Department of Environmental Protection, and the Massachusetts Division of Fish and Wildlife.

All phases of remediation activities will be permitted within the Camp Edwards Training Area after review and approval by the managing agencies, principally the Department of the Army and its divisions, together with the federal and state agencies who will have jurisdiction for remediation.

Pollution prevention and management of the Camp Edwards training ranges will focus on and include the following:

The Camp Edwards Training Area, including the Small Arms Ranges (SAR) and their associated "Surface Danger Zones," and any areas where small arms or other munitions or simulated munitions are used, shall be managed as part of a unique water supply area under an adaptive management program that integrates pollution prevention, and best management practices (BMP), including the recovery of projectiles. This will be done through individual range-specific plans that are written by the Massachusetts National Guard and approved for implementation through the EMC and any other regulatory agency having statutory and/or regulatory oversight. Adaptive, in this context, means making decisions as part of a continual process of monitoring, reviewing collected data, evaluating advances in range monitoring, design and technology, and responding with management actions as dictated by the resulting information and needs of protecting the environment while providing compatible military training within the Upper Cape Water Supply Reserve.

A range plan shall be designed and followed to reduce the potential for an unintended release to the environment outside of the established containment system(s) identified in the range-specific plans. All users must be aware of, and comply with, the Environmental Performance Standards that are applicable to all SAR activities. Any range specific requirements will be coordinated through the E&RC with the EMC, incorporating those specific requirements into the appropriate range-specific plans and range information packets. Camp Edwards SAR Pollution Prevention Plan shall be followed to prevent or minimize releases of metals or other compounds related to the normal and approved operation of each SAR. The adaptive SAR management program components required in each range-specific plan shall include:

- Consultation with applicable agencies with oversight of the training area before undertaking any actions that are subject to state and/or federal regulatory requirements.
- Specific recovery plans for the removal and proper disposition of spent projectiles, residues and solid waste associated with the weapons, ammunition, target systems, and/or their operation and maintenance.
- Reduction of adverse impacts to the maximum extent feasible, including consideration for the design/redesign and/or relocation of the activity or encouraging only those activities that result in meeting the goal of overall projectile and/or projectile constituent containment.
- Internal and external coordination of documentation for the Camp Edwards range management programs and other related Camp Edwards management programs including: the Integrated

- Training Area Management Program, Range Regulations, Camp Edwards Environmental Management System, Civilian Use Manual, and Standard Operating Procedures.
- Long-term range maintenance, monitoring and reporting of applicable parameters and analysis.

The Massachusetts National Guard shall ensure that all training areas where munitions or simulated munitions are used or come to be located, including range areas, range surface danger zones, and any other areas within the Upper Cape Water Supply Reserve that are operational ranges are maintained and monitored following approved management plans that include planning for pollution prevention, sustainable range use and where applicable, restoration.

Protection and management of the vegetation of the Camp Edwards Training Area for focus on the following:

- Preservation of the habitat for federal- and state-listed rare species and other wildlife.
- Preservation of the wetland resource areas.
- Activities compatible with the need to manage and preserve the vegetative resources.
- Realistic field training needs.
- Identification and restoration of areas impacted by training activities.

Goals for the Adaptive Ecosystem Management approach to management of the Camp Edwards properties will be as follows:

- Management of the groundwater for drinking water resources
- Conservation of endangered species.
- Management of endangered species habitat for continuation of the species.
- Ensuring compatible military training activities.
- Allowing for compatible civilian use.
- Identification and restoration of areas impacted by training activities.

The Environmental Performance Standards will be incorporated into the programs and regulations of the Massachusetts National Guard as follows. Those standards relating to natural resources management shall be incorporated as standards into each of the state and federal environmental management programs and attached as an appendix or written into the documentation accompanying the plan or program. All the Environmental Performance Standards will be attached to the Integrated Training Area Management Plan 'Trainer's Guide' and to the Camp Edwards Range Regulations. Modification of the Standards Operating Procedures will include review and conformance with the Environmental Performance Standards for trainers and soldiers at Camp Edwards.

SPECIFIC RESOURCE PERFORMANCE STANDARDS IN THE CAMP EDWARDS TRAINING AREA

1. Groundwater Resources Performance Standards:

1.1. All actions, at any location within the Camp Edwards Training Areas, must preserve and maintain groundwater quality and quantity, and protect the recharge areas 1:0 existing and potential water supply wells. All areas within Camp Edwards Training Areas will be managed as State Zone U, and, where designated, Zone I, water supply areas.

1.2 The following standards shall apply to designated Wellhead Protection Areas:

- The 400-foot radius around approved public water supply wells will be protected from all access with signage. That protection will be maintained by the owner and/or operator of the well, or the leaseholder of the property.
- No new stormwater discharges may be directed into Zone I areas.
- No in ground septic system will be permitted within a Zone I area.
- No solid wastes may be generated or held within Zone I areas except as incidental to the construction, operation, and management of a well.
- Travel in Zone I areas will be limited to foot travel or to vehicles required for construction, operation, and maintenance of wells.
- No new or existing bivouac activity or area shall be located within a Zone I area.
- All other areas will be considered as Zone II designated areas and will be subject to the standards of the Groundwater Protection Policy.

1.3 Land-use activities that do not comply with either the state Wellhead Protection regulations (310 CMR 22.00 et seq.) or the Groundwater protection Policy are prohibited.

1.4 All activities will support and not interfere with either the Impact Area Groundwater Study and/or the Installation Restoration Program. All activities shall conform to the requirements of Comprehensive Environmental Response, Compensation and Liability Act, the Massachusetts Contingency Plan, and the Safe Drinking Water Act.

1.5 Extraction, use, and transfer of the groundwater resources must not de-grade [e.g. draw down surface waters] in freshwater ponds, vernal pools, wetlands, and marine waters, unless properly reviewed, mitigated, and approved by the managing and regulating agencies.

1.6 Land uses and activities in the Camp Edwards Training Areas will meet the following standards:

- Will conform to all existing and applicable federal, state and local regulations.
- Must be able to be implemented without interference with ongoing remediation projects.
- Allow regional access to the water supplies on the Massachusetts Military Reservation.

1.7 The following programs and standards will be used as the basis for protecting groundwater resources in the Camp Edwards Training Areas:

- Groundwater Protection Policy.
- Federal and Department of Defense environmental programs: Integrated Natural Resources Management Plan, Integrated Training Area Management Program, Range Regulations, Spill Prevention Control and Countermeasures Plan (or equivalent), Installation Restoration Plan, Impact Area Groundwater Study, or other remediation programs.
- State and federal laws and regulations pertaining to water supply.

2. Wetlands and Surface Water Performance Standards:

2.1 Since there are relatively few wetland resources found at the Massachusetts Military Reservation, and since they are important to the support of habitat and water quality on the properties, the minimum standard will be no net loss of any of the wetland resources or their 100-foot buffers.

2.2 Land uses and activities will be managed to prevent and mitigate new adverse impacts and eliminate or reduce existing conditions adverse to wetlands and surface water resource areas. Impacts from remediation activities may be acceptable with implementation of reasonable alternatives.

2.3 Wetland area management priorities:

- Protection of existing wetland resource areas for their contributions to existing and potential drinking water supplies.
- Protection of wetlands for rare species and their habitats.
- Protection of human health and safety.

2.4. Activities will be managed to preserve and protect wetlands and vernal pools as defined by applicable, federal, state, and local regulations. These activities will include replacement or replication of all wetland resource buffer areas, which are lost after completion of an activity or use.

2.5 All land altering activities within 100 feet of a certified vernal pool must be reviewed before commencement by the Massachusetts Department of Environmental Protection/Wetlands Unit and the Natural Heritage and Endangered Species Program within the Division of Fish and Wildlife for impacts to wildlife and habitat. The certification of vernal pools will be supported by the on site personnel and will proceed with the assistance of the appropriate state agencies.

2.6 All new uses or activities will be prohibited within the wetlands and their 100-foot buffers, except those associated with an approved habitat enhancement or restoration program; those on existing improved and unimproved roads where appropriate sediment and erosion controls are put in place prior to the activity; or those where no practicable alternative to the proposed action is available. No new roads should be located within the 100-foot buffers. Existing roads within such buffers should be relocated provided that:

- The relocation does not cause greater environmental impact to other resources.
- There are funds and resources allocated for resource management and that those resources are approved and available for the relocation.

2.7 During the period of 15 February to 15 May, listed roads/trails within 500 feet of wetlands will be closed to vehicle access to protect the migration and breeding of amphibians. Emergency response and environmental management activities will not be restricted.

- Donnelly and Little Halfway Ponds maneuver trails (excluding the permanently closed section along the eastern edge of Donnelly Pond) from Frank Perkins Road north to Wood Road
- Red Maple Swamp trail from Wood Road north and east to Avery Road
- Orchard and Jefferson Roads (continuous) from Cat Road south and east to Burgoyne Road
- Maneuver trail(s) in powerline easement north of Gibbs Road from Goat Pasture Road west to the boundary of training areas C-13 and C-14
- Grassy Pond trail (side access to Sierra Range) from Gibbs Road south to Sierra Range
- Sandwich Road from the powerline easement north to the gas pipeline right of way
- Bypass Bog/Mike Range Road from entrance to Mike Range south and west to Greenway Road

2.8 No new bivouac area shall be located within 500 feet of any wetland. Any existing bivouac within a wetland buffer shall be relocated provided there are funds and resources allocated for the relocation.

3. Rare Species Performance Standards:

3.1 As the Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife has identified the entire Massachusetts Military Reservation as State Priority Habitat for state-

listed species (version dated 2000-2001), all activities and uses must comply with the Massachusetts Endangered Species Act and its regulations.

3.2 Where activities and uses are not specifically regulated under the Camp Edwards Training Area Range and Environmental Regulations, including these Environmental Performance Standards, the MMR Environmental and Readiness Center must review the activities for conformance with the Integrated Natural Resource Management Plan, and shall consult with the Natural Heritage and Endangered Species Program regarding potential impacts to state-listed species.

3.3 All activities impacting rare species habitat must be designed to preserve or enhance that habitat as determined by the MMR Environmental and Readiness Center in consultation with the Natural Heritage and Endangered Species Program.

3.4 Users are prohibited from interfering with state and federal listed species.

3.5 Users will report all sightings of recognized listed species, e.g. box turtles, within any area of the Massachusetts Military Reservation.

4. Soil Conservation Performance Standards

4.1 Activities and uses must be compatible with the limitations of the underlying soils. Limitations on uses and activities may be made where the soils or soil conditions would not support the activity.

4.2 Agricultural soil types will be preserved for future use.

4.3 Any perennial or intermittent stream identified by the Environmental & Readiness Center Office will be protected from siltation by retaining undisturbed vegetative buffers to the extent feasible.

4.4 Cultural resource evaluations must be completed before any earth-moving operation may take place in undisturbed areas with high potential for cultural resources, and earth moving may be limited to specific areas (See Cultural Resource Performance Standards).

4.5 An erosion control analysis will be made part of the land management programs (Integrated Natural Resource Management Plan, the Integrated Training Area Management Program, Range Regulations, Civilian Use, and Standard Operating Procedures) for the Camp Edwards Training Area, including appropriate mitigation measures where existing or potential erosion problems are identified.

4.6 For all improved and unimproved roads, ditches and drainage ways:

- All unimproved roads, ditches, roads and drainage ways identified for maintenance will be cleaned of logs, slash and debris.
- Unimproved roads and roads may not otherwise be improved unless approved for modification.
- Any trail, ditch, road, or drainage way damaged by activities will be repaired in accordance with the hazard and impact it creates.

4.7 Erosion-prone sites will be inspected periodically to identify damage and mitigation measures.

5. Vegetation Management Performance Standards

5.1 All planning and management activities impacting vegetation

- Will ensure the maintenance of native plant communities, and
- Shall be performed to maintain the biological diversity.

5.2 Revegetation of disturbed sites will be achieved by natural and artificial recolonization by native species.

5.3 Timber harvesting or clear-cutting of forested areas should not occur on steep slopes with unstable soils or within the buffers to wetland resources.

5.4 Vegetation management will be subject to a forest management and fire protection program prepared by the users in accordance with federal standards, and carried out in a manner acceptable to the Massachusetts Military Reservation Committee and other state agencies or commissions, as may be designated by the Commonwealth of Massachusetts.

6. Habitat Management Performance Standards:

6.1 The Camp Edwards Training Area will be managed as a unique rare species and wildlife habitat area under an adaptive ecosystem management program that integrates ecological, socio-economic, and institutional perspectives, and which operates under the following definitions:

- Adaptive means making decisions as part of a continual process of monitoring, reviewing collected data, and responding with management actions as dictated by the resulting information and needs of the system.
- Ecosystem means a system-wide understanding of the arrangements of living and non-living things, and the forces that act upon and within the system.
- Management entails a multi-disciplinary approach where potentially competing interests are resolved with expert analysis, user and local interest considerations, and a commitment to compromise interests when the broader goal is achieved to manage the Camp Edwards Training Area as a unique wildlife habitat area.

6.2 The adaptive ecosystem management program will include:

- Coordinated documentation for the management programs, Integrated Natural Resource Management Plan, the Integrated Training Area Management Program, Range Regulations, Civilian Use, and Standard Operating Procedures.
- The Massachusetts National Guard Environmental and Readiness Center staff and necessary funding to support its ecosystem management plans, as related to the amount of training occurring.
- Cooperative agreements to create a management team of scientific and regulatory experts.
- Long-term land maintenance, monitoring of resources and trends, study and analysis.
- Recovery plans for species and habitats identified for improvement.
- Consultation with Federal and State agencies charged with oversight of the Endangered Species Program before any actions that may affect state and federal-listed species habitat.
- Reduction of adverse impacts to the maximum extent possible, including consideration for the relocation of the activity or encouraging only those activities that result in meeting a habitat management goal.
- Habitat management activities designed to promote protection and restoration of native habitat types.

7. Wildlife Management Performance Standards:

7.1 Native wildlife habitats and ecosystems management will focus on the following:

- Protecting rare and endangered species, and,
- Maintaining biodiversity.

7.2 Hunting, recreation and educational trips must be approved, scheduled, planned, and supervised through Range Control.

7.3 Any activity or use will prioritize protection of life, property, and natural resource values at the boundaries of the Camp Edwards Training Area where wildlife interfaces with the surrounding built environment.

7.4 Wildlife management will include the following actions, specific to the species targeted for management:

- Development and implementation of a plan to monitor hunting of game species.
- Planning for multi-use objectives for recreation and hunting that incorporate public input and recommendations.
- Development of suitable monitoring programs for federal and state-listed species, and regular exchange of information with the Natural Heritage and Endangered Species Program.

8. Air Quality Performance Standard

8.1 All uses and activities will be responsible for compliance with both the State Implementation Plan for Air Quality and the Federal Clean Air Act.

8.2 Air quality management activities will include air sampling if required by regulation of the activity.

9. Noise Management Performance Standards:

9.1 Noise management activities shall conform to the Army's Environmental Noise Management Program policies for evaluation, assessment, monitoring, and response procedures.

10. Pest Management Performance Standards:

10.1 Each user will develop and implement an Integrated Pest Management Program to control pest infestations that may include outside contracting of services. Non-native biological controls should not be considered unless approved by federal and state agencies.

10.2 Each user will be held responsible for management of pests that threaten rare and endangered species, or are exotic and invasive species. Invasive plant species that may be considered pest species are those defined by the United States Fish and Wildlife Service and the Massachusetts Natural Heritage and Endangered Species Program of the Division of Fisheries and Wildlife office. Site-specific analysis will be performed before implementation of any proposed pest management plans.

10.3 Pest vegetation control must be balanced against environmental impact and any proposed pest management activities, including the use of herbicides and mechanical methods, within rare species habitat areas must be approved by the Natural Heritage and Endangered Species Program, or in the case of federally listed species, by the United States Fish and Wildlife Service.

10.4 Only herbicide formulations approved by the United States Environmental Protection Agency, the Department of Agriculture, the agency managing the user, and the Commonwealth of Massachusetts may be applied.

10.5 Herbicides and pesticides will not be applied by aerial spraying unless required by emergency conditions and approved under applicable state and federal regulations.

11. Fire Management Performance Standards

11.1 All activities and uses shall manage, prevent, detect, and suppress fires on the Camp Edwards Training Area in coordination with the local and state fire services and natural resource managers in the Environmental & Readiness Center.

11.2 Prescribed burns will be used as a habitat management and fire prevention tool. Prescribed burns will be used to reduce natural fire potential and create or maintain diverse and rare species habitat.

11.3 Pre-suppression activities will include strategic firebreaks and other management of vegetation in high risk and high-incidence areas. The Integrated Natural Resource Management Plan and Fire Management Plan will be consulted for proposed actions.

11.4 Other than the above, no open fires are allowed.

12. Stormwater Management Performance Standards

12.1 All stormwater facilities shall comply with the State Department of Environmental Protection Guidelines for Stormwater Management, including Best Management Practices and all other applicable standards for control and mitigation of increased storm water flow rates and improvement of water quality.

12.2 All increases in stormwater runoff will be controlled within the user's property.

12.3 No new stormwater discharges will be made directly into wetlands or wetland resource areas.

13. Wastewater Performance Standards

13.1 All wastewater and sewage disposal will be in conformance with the applicable Federal and Massachusetts Department of Environmental Protection agency regulations.

14. Solid Waste Performance Standards

14.1 All solid waste streams (i.e., wastes not meeting the criteria for hazardous wastes) will be monitored and managed to substitute, reduce, recycle, modify processes, implement best management practices, and/or reuse waste, thereby reducing the total tonnage of wastes.

14.2 All users will be held responsible for collection, removal and disposal outside of the Camp Edwards Training Areas of solid wastes generated by their activities.

14.3 All users must handle solid wastes using best management practices to minimize nuisance odors, windblown litter, and attraction of vectors.

14.4 No permanent disposal of solid waste within the Groundwater protection Policy area/Camp Edwards field training areas will be permitted.

15. Hazardous Materials Performance Standards

15.1 Where they are permitted, use and application of hazardous materials shall be otherwise minimized in accordance with pollution prevention and waste minimization practices, including material substitution.

15.2 No permanent disposal of hazardous wastes within the Groundwater protection Policy area/Camp Edwards field training areas will be permitted.

15.3 Fuel Management

15.3.1 Spill Prevention, Control, and Countermeasure Plan, is in place to reduce potential for a release. Camp Edwards Spill Response Plan is in place to respond to a release if an event should occur. All users will comply with these plans at the Camp Edwards Training Area.

15.3.2 If found, non-complying underground fuel storage tanks will be removed in accordance with state and federal laws and regulations to include remediation of contaminated soil.

15.3.3 No storage or movement of fuels for supporting field activities, other than in vehicle fuel tanks, will be permitted except in approved containers no greater than five gallons in capacity.

15.3.4 New storage tanks are prohibited unless they meet the following requirements:

- Are approved for maintenance heating, or, permanent emergency generators and limited to propane or natural gas fuels.
- Conform to the Groundwater Protection Policy and applicable codes.

15.4 Non-fuel Hazardous Material Storage

15.4.1 No storage above those quantities necessary to support field training activities will be allowed within the Camp Edwards Training Area except where necessary to meet regulatory requirements, and where provided with secondary containment.

15.4.2 When required by applicable regulation, the user shall implement a Spill Prevention, Control and Containment/Emergency Response or other applicable response plan.

16. Hazardous Waste Performance Standards

16.1 All uses shall comply with applicable local, state, and federal regulations governing hazardous waste generation, management, and disposal (including overlays relative to Wellhead Protection, Zone II's within the Cantonment Area) .

16.2 Accumulations of hazardous waste shall be handled in accordance with regulations governing accumulation and storage.

16.3 Existing facilities must implement pollution prevention and waste minimization procedures (process modifications, material substitution, recycling, and best management practices) to minimize waste generation and hazardous materials use.

18.2. **Civilian Use Manual.** To guide public conduct on the Massachusetts Military Reservation, a Civilian Use Manual will be prepared and periodically updated. All civilian users will obtain and follow this Manual.

18.3. **Siting and Design Performance Standards**

18.3.1 New or expanded buildings should not be proposed within the Camp Edwards Training Areas, with the following exceptions:

- Buildings to support allowed training, operations and activities, including upgrading of those facilities currently in place,
- Buildings used for the purposes of remediation activities,
- Buildings used for the purposes of development, operation and maintenance of water supplies,
- Buildings used for the purpose of natural resource and land management.

19. Range Performance Standards

19.1. All operational ranges including but not limited to small arms ranges (SAR) shall be managed to minimize harmful impacts to the environment within the Upper Cape Water Supply Reserve. Range management at each range shall include to the maximum extent practicable metal recovery and recycling, prevention of fragmentation and ricochets, and prevention of sub-surface percolation of residue associated with the range operations. Camp Edwards shall be held responsible for the implementation of BMPs by authorized range users, including collection and removal of spent ammunition and associated debris.

19.2. Small arms ranges shall only be used in accordance with approved range plans. These plans shall be designed to minimize to the maximum extent practicable the release of metals or other contaminants to the environment outside of specifically approved containment areas/systems. Occasional ricochets that result in rounds landing outside of these containment areas is expected and every effort to minimize and correct these occurrences shall be taken. Failure to follow the approved range plans shall be considered a violation of this EPS.

19.3. All operational SARs shall be closely monitored by the Massachusetts National Guard to assess compliance of the approved range plans as well as the implementation and effectiveness of the range specific BMPs.

19.4. Camp Edwards/Massachusetts National Guard Environmental and Readiness Center shall staff and request appropriate funding to support its SAR management plans.

19.5. All users must use and follow Camp Edwards' Range Control checklists and procedures to:

- Minimize debris on the range (e.g. shell casings, used targets)
- Minimize or control residues on the ranges resulting from training (e.g., unburned constituents, metal shavings from the muzzle blast)
- Ensure the range is being used for the designated purpose in accordance with all applicable plans and approvals

19.6. Camp Edwards is responsible for following range operation procedures and maintaining range pollution prevention systems. Range BMPs shall be reviewed annually for effectiveness and potential improvements in their design, monitoring, maintenance, and operational procedures in an effort to

continually improve them. Each year the annual report shall detail the range-specific activities including, but not limited to, the number of rounds fired, number of shooters and their organization, and the number of days the range was in use. The annual report will also detail active SAR groundwater well and lysimeter results, as well as any range maintenance/management activities that took place that training year and the result of such activities, i.e. lbs of brass and projectiles recovered and recycled, etc. The Massachusetts National Guard shall provide regular and unrestricted access for the EMC to all its data and information, and will provide immediate access to environmental samples from the range, including range management and monitoring systems and any other applicable activities operating on the ranges.

19.7. Range plans and BMPs for training areas shall be reviewed and/or updated at least every three years. Management plans for new and upgraded ranges shall be in place prior to construction or utilization of the range. Range plans, at a minimum, will address long-term sustainable use, hydrology and hydrogeology, physical design, operation, management procedures, record keeping, pollution prevention, maintenance, monitoring, and applicable technologies to ensure sustainable range management. Range plans shall be integrated with other training area planning processes and resources.

19.8. The Massachusetts National Guard shall establish procedures for range maintenance and where applicable, maintenance and/or clearance operations to permit the sustainable, compatible, and safe use of operational ranges for their intended purpose within the Upper Cape Water Supply Reserve. In determining the frequency and degree of range maintenance and clearance operations, the Massachusetts National Guard shall consider, at a minimum, the environmental impact and safety hazards, each range's intended use, lease requirements, and the quantities and types of munitions or simulated munitions expended on that range.

16.4 Occupants and users will be held responsible for removing all solid or hazardous wastes generated during the period of use/tenancy/visitation upon their departure or in accordance with other applicable or relevant regulations.

16.5 Remedial activities undertaken under the Installation Restoration Program, the Impact Area Groundwater Study Program, the Massachusetts Contingency Plan, or other governing remediation programs are exempt from additional regulation (e.g., waste generation volume limits). Removal, storage, and disposal of contaminated material are required to comply with all state, and federal regulations.

16.6 Post-remedial uses and activities at previously impacted sites will be allowed in accordance with terms and conditions of the applicable regulations.

16.7 All hazardous wastes will be transported in accordance with federal Department of Transportation regulations governing shipment of these materials.

16.8 Transport shall reduce the number of trips for transfer and pick-up of hazardous wastes for disposal to extent feasible. This may include planning appropriate routes that minimize proximity to sensitive natural resource areas, and reducing internal transfers of material, including transfers from bulk storage tanks to drums, tankers, carboys, or other portable containers or quantities.

16.9 No permanent disposal of hazardous wastes within the Groundwater Protection Policy area/Camp Edwards field training areas will be permitted.

17. Vehicle Performance Standards:

17.1 Vehicles within the Camp Edwards Training Area will be limited to the existing improved and unimproved road system except where required for natural resource management or property maintenance or where off-road activity areas are located and approved by the Environmental and Readiness Center in consultation with the Massachusetts Division of Fisheries and Wildlife.

17.2 Unimproved, established access ways will be limited to use by vehicles in accordance with soil conditions as described in the Soil Conservation Performance Standards.

17.3 The number of military and civilian vehicles within the Camp Edwards Training Area will be controlled using appropriate scheduling and signage.

18. General Use and Access Performance Standards:

18.1 General User Requirements. Requirements that will apply to all users, both public and private, in the Camp Edwards Training Area include the following:

- All acts that pollute the groundwater supply are prohibited.
- No litter or refuse of any sort may be thrown or left in or on any property.
- All users will be held responsible for providing, maintaining, and re-moving closed-system, sanitary facilities necessary for their use and activity.
- No person shall wade or swim in any water body except for activities approved by the Massachusetts National Guard including remediation, scientific study, or research.
- Vehicles may only be driven on roads authorized and designated for such use and parked in designated areas, and may not cross any designated wetland.
- Public users may not impede the military training activities.



MEMORANDUM OF AGREEMENT
Between
The Commonwealth of Massachusetts
And
The United States Army and National Guard Bureau

This Memorandum of Agreement ("Agreement") is made by and among the Governor of the Commonwealth of Massachusetts (the "Governor"), the United States of America, represented by the Department of the Army ("Army") and the National Guard Bureau, The Adjutant General of the Massachusetts National Guard and the Military Division of the Commonwealth, the Secretary of Environmental Affairs, the Commissioner of the Department of Fisheries, Wildlife, and Environmental Law Enforcement ("DFWELE"), the Commissioner of the Department of Environmental Management ("DEM"), the Commissioner of the Department of Environmental Protection ("DEP"), collectively referred to herein as the "Parties."

The purpose of this Agreement is to establish a long-term management structure for the northern 15,000 acres of the Massachusetts Military Reservation ("MMR") in order to ensure the permanent protection of the drinking water supply and the wildlife habitat, and to ensure that military and other activities are compatible with protection of the drinking water supply and the wildlife habitat.

WHEREAS, the Massachusetts Military Reservation ("MMR"), consisting of approximately 22,000 acres, was established by 1935 Mass. Acts c. 196; 1936 Mass. Acts c. 320; 1936 Mass. Acts c. 344; 1941 Mass. Acts c. 5; 1955 Mass. Acts c. 655; and 1956 Mass. Acts c. 617 (collectively, the "Enabling Acts") for the purpose of the use and training of the military forces of the Commonwealth and entrusted to the jurisdiction of the Special Military Reservation Commission; and

WHEREAS, the 22,000 acres of MMR is currently leased by the Commonwealth to the United States of America until the year 2026 by three separate leases: one to the United States represented by the Department of the Army; one to the United States represented by the Department of the Air Force; and one to the United States represented by the Department of Transportation; and

WHEREAS, the northern approximately 15,000 acres are leased by the Commonwealth to the United States acting through the Department of the Army for military uses; and

WHEREAS, the Department of the Army licensed the northern 15,000 acres of the MMR to the Commonwealth, acting through the Massachusetts Army and Air National Guard (the "Massachusetts National Guard") for year-round training and support of the Massachusetts National Guard;

WHEREAS, the northern approximately 15,000 acres of the MMR are environmentally sensitive lands; and

WHEREAS, the Massachusetts Army National Guard, as the primary occupant of the northern approximately 15,000 acres of the MMR, provides operational staffing, maintenance and repair, environmental compliance and security programs for this property. The Massachusetts Army National Guard's programs for the northern 15,000 acres of the MMR include, but are not limited to, a Real Property and Maintenance program, an Integrated Training Area Management Program, environmental awareness and compliance programs, an Installation Restoration Program, an Integrated Cultural Resources Management Plan, and an Integrated Natural Resources Management Plan, all as described in more detail in Appendix 1; and

WHEREAS, pursuant to the Massachusetts Environmental Policy Act ("MEPA"), Mass. Gen. L. c. 30 §§61-62H, the Secretary of Environmental Affairs issued a Certificate in April 1997 to the Massachusetts National Guard to develop, in coordination with community participants, an environmental master plan for the future use of MMR. A second MEPA Certificate issued by the Secretary to The Adjutant General in May 1997 established a scope for the master plan effort and created a Community Working Group ("CWG") to advise the Secretary and develop a consensus vision for MMR, including public participation in environmental review of the forthcoming master plan, of specific proposed projects, and of those projects that may be developed through the master plan; and

WHEREAS, in September 1998, the CWG issued its *Master Plan Final Report*, which recommended future uses and activities at MMR. The *Master Plan Final Report* distinguished between the Cantonment Zone, where more intensive military and civilian activities may be anticipated, and the Water Supply Management Zone, which is co-extensive with the northern 15,000 acres of the MMR. The *Master Plan Final Report* described the purpose of the northern 15,000 acres as "permanent protection and coordinated management plans for water supply, wildlife habitat, and open space protection consistent with necessary and compatible military activities"; and

WHEREAS, the Final Environmental Impact Report and a subsequent informational supplement proposed a comprehensive set of Environmental Performance Standards (EPS) (Appendix 2) designed to guide all activities on the northern 15,000 acres of the MMR, and in particular training on the northern 15,000 acres. The proposed EPS received extensive review and were strengthened throughout the MEPA process. Each EPS meets or exceeds applicable regulatory standards. On July 16, 2001, the Secretary issued a Certificate finding that the Final Environmental Impact Report adequately and properly complies with MEPA, subject to the execution of an enforceable management agreement that embodies the Guiding Principles (Appendix 3); and

WHEREAS, the Parties mutually agree that a cooperative partnership between the Commonwealth and the military for the management of the northern 15,000 acres of the MMR is necessary in order to ensure the permanent protection of the drinking water supply and wildlife habitat, and to ensure that military and other activities are compatible with protection of the drinking water supply and the wildlife habitat;

NOW, THEREFORE, the Parties agree as follows:

General Responsibilities

1. All military and other activities conducted on the northern 15,000 acres of the MMR shall be conducted in accordance with all applicable federal and state environmental laws and regulations and the EPS.
2. The Massachusetts National Guard shall coordinate the activities of the various military and other users of the northern 15,000 acres of the MMR, excluding the Air Force PAVE PAWS site and the Coast Guard Transmitter site, which are addressed in paragraph 24, to ensure security and maintenance of the area.

Environmental Management Commission

3. The Governor shall establish by Executive Order an independent Environmental Management Commission ("EMC") of MMR. The Governor will file legislation to codify the EMC and its functions. The EMC shall consist of three *ex officio* members: the Commissioner of the Department of Fisheries, Wildlife, and Environmental Law Enforcement; the Commissioner of the Department of Environmental Management; and the Commissioner of the Department of Environmental Protection.
4. The purpose of the EMC shall be to ensure the permanent protection of the drinking water supply and wildlife habitat of the northern 15,000 acres of the MMR. The EMC shall ensure, by independent oversight, monitoring, and evaluation, that all military and other activities on the northern 15,000 acres are consistent with this purpose. The EMC shall oversee compliance with and enforcement of the Environmental Performance Standards (EPS); coordinate the actions of state environmental agencies in the enforcement of laws and regulations, as appropriate; and facilitate an open and public review of all activities on the northern 15,000 acres of the MMR.

Advisory Councils

5. The EMC shall be assisted by two advisory councils:
 - a. Community Advisory Council ("CAC"). The CAC shall be comprised of the following members: one representative of each of the towns of Falmouth, Bourne, Sandwich, and Mashpee; one family member resident of MMR; two representatives of the military; one representative of the Cape Cod Commission; one representative of the Upper Cape Regional Water Supply Cooperative; one representative of the Wampanoag Tribe; and five other members. All members shall be appointed by the Governor, provided that the

town representatives shall be recommended by the towns' respective Boards of Selectmen; the MMR family member resident shall be selected from among a list of five persons provided by the Commander of the Coast Guard Air Station Cape Cod; the military representatives shall be recommended by the Military Division of the Commonwealth; the Cape Cod Commission representative shall be recommended by the Cape Cod Commission; the Upper Cape Regional Water Supply Cooperative representative shall be recommended by the Upper Cape Regional Water Supply Cooperative; and the Wampanoag Tribe representative shall be recommended by the tribal leadership. The CAC shall assist the EMC by providing advice on issues related to the protection of the drinking water supply and wildlife habitat on the northern 15,000 acres of the MMR

b. Science Advisory Council ("SAC"). The SAC shall be appointed by the Governor and be comprised of five (5) to nine (9) scientists and engineers who are recognized for their expertise in the areas of public health, water protection, wildlife habitat management, or land use management. The SAC shall assist the EMC by providing advice on scientific and technical issues related to the protection of the drinking water supply and wildlife habitat on the northern 15,000 acres of the MMR.

Environmental Officer

6. The EMC shall designate a state employee to serve as the MMR Environmental Officer ("EO") and may designate such additional persons as may be necessary to carry out the activities of the Commission. The EO shall report to the EMC. The duties and responsibilities of the EO shall be to monitor the activities being conducted on and the uses of the northern 15,000 acres of the MMR and the impact of such activities and uses on the drinking water supply and wildlife habitat of the northern 15,000 acres of the MMR. The EO shall also coordinate with appropriate personnel from DFWELE, DEM, and DEP to monitor and evaluate the environmental impact of activities conducted on and uses of the northern 15,000 acres of the MMR. The Massachusetts National Guard shall provide the EO with office space located within the Environmental Readiness Center (ERC) or other such location on the MMR as may be appropriate to carry out the EO's duties. The Massachusetts National Guard shall designate an individual as its representative and liaison to the EMC.

Access and Information

7. EMC, DFWELE, DEM, and DEP personnel shall have access to the northern 15,000 acres of the MMR in order to monitor, oversee, evaluate, and report to the EMC on the environmental impact of military training and all other activities. Such access shall be allowed prior to, during, and immediately following training or other activities upon proper notice and in accordance with Camp Edwards Standard Operating Procedures (SOP), regulations, and security requirements.

8. The Massachusetts National Guard and the Army shall allow the EO, acting on behalf of the EMC, regular and unrestricted access to all data and information from the various environmental and management programs and activities operating on Camp Edwards. These programs and activities include, but are not limited to, the Integrated Training Area Management Program

(ITAM); the Integrated Natural Resources Management Plan (INRMP); the Integrated Cultural Resources Management Plan (ICRMP); Camp Edwards SOPs; and any other program or activity created by the Army or the Massachusetts National Guard for the purpose of managing or maintaining the northern 15,000 acres of the MMR. Access to data and information shall not include restricted or classified information, unless the EO obtains the appropriate level of security clearance. The Army and the Massachusetts National Guard shall use its best efforts to assist the EO in obtaining the appropriate level of security clearance. The Massachusetts National Guard shall also submit all draft and final Impact Area Ground Water Study Reports to the EMC for information, as soon as such reports become available.

Annual State of the Reservation Report

9. The Massachusetts National Guard shall submit to the EMC, with copies to the SAC and CAC, the Annual State of the Reservation Report, required by Mass. Gen. L. c. 30, §61, describing in detail: (a) the nature and extent of military training and other activities; (b) all resource management activities and projects; (c) the status of compliance with applicable federal and state environmental laws and regulations and the EPS; and (d) long-term trends in the major areas of resource management and activities. The Massachusetts National Guard shall make the Annual Report publicly available. This report shall be based primarily upon the management programs referenced in paragraph 8.

Notification Requirements

10. The Massachusetts National Guard shall notify the EMC, in writing and within two (2) business days after discovery, of any violation of an EPS. The notification shall include the nature and extent of the violation and any corrective action that has been taken or will be taken to return to compliance. With respect to a violation of federal or state law that is reported to or by a state or federal agency, the Massachusetts National Guard shall provide the EMC with a copy of any such notice provided to or by the federal or state agency.

11. The Massachusetts National Guard shall also notify the EMC, in writing and within two (2) business days after discovery, of any damage or threat of damage to the drinking water supply or wildlife habitat, even if the damage results, or may result from, an activity that is otherwise compliant with law, regulation, or EPS. Damage shall not include any insignificant damage to these resources.

EMC Actions and Enforcement

12. The EMC shall evaluate all information and data regarding the activities and uses of the northern 15,000 acres of the MMR and the environmental impacts upon the drinking water supply and wildlife habitat of the northern 15,000 acres of the MMR and may take appropriate action. The EMC may consult with the SAC, CAC, or other entities in evaluating such information and in taking such action.

13. If the EMC determines that a user has violated or is violating an EPS, the EMC will notify the violator of the violation and may: (1) in the case of an imminent and substantial damage,

order such activity to cease immediately, or require adjustments in the activity to eliminate the imminent and substantial damage or threat of damage; or (2) in all other cases, require the violator to return to compliance within a reasonable time and to notify the EMC of the corrective action taken, including steps to ensure future compliance. Repeat or willful violations of an EPS may result in sanctions up to and including cessation of activities.

14. The state environmental agencies on the EMC retain all their respective, independent enforcement authority. In response to an enforcement action brought by one of the state environmental agencies, including DFWELE, DEM, and DEP, members of the EMC shall work together to implement coordinated actions at the MMR. In order to avoid, minimize, and mitigate any negative impacts, they shall, in good faith and where appropriate, seek comment and input from one another, the military, and the public before issuing decisions or taking actions at the MMR.

15. If the EMC determines, based upon sound and accepted scientific analysis and evidence, that an activity that is otherwise compliant with law, regulation, or EPS is causing or threatens to cause imminent and substantial damage to the drinking water supply or wildlife habitat of the northern 15,000 acres of MMR, the EMC may: (1) order such activity to cease immediately; or (2) require adjustments in the activity to eliminate the imminent and substantial damage or threat of damage.

Cessation of Activities

16. The Massachusetts National Guard, the Army, and any other user of MMR shall immediately cease or adjust any activity that, in the determination of the Massachusetts National Guard or the EMC, causes or threatens to cause imminent and substantial damage to the drinking water supply or the wildlife habitat of the northern 15,000 acres of the MMR.

Adjustment to Environmental Performance Standards

17. After consultation with the SAC and CAC, the EMC may adjust EPS based upon sound and accepted scientific analysis, monitoring data, and other relevant information. The proponent of any adjustment shall bear the burden of justifying the proposed adjustment and demonstrating that the proposed adjustment is protective of the drinking water supply and wildlife habitat. If the EMC determines that a proposed adjustment may be warranted and does not significantly reduce the standard of environmental protection, it shall publish a notice of availability of the proposed adjustment to the EPS in the *Environmental Monitor*, furnish copies to all members of the CAC and SAC, and accept public comment for a period of at least 30 days following the publication date. Thereafter, the proposed EPS will become effective on a date determined by the EMC. The EMC shall not consider adjustments to the EPS prior to submission of the first State of the Reservation Report, required under paragraph 9 above and to be filed on or about 1 January 2003, unless such an adjustment is necessary to abate an imminent and substantial damage or for national security reasons.

Compliance

18. The military agrees to comply with all decisions and orders of the EMC, provided such decisions or orders do not conflict with federal or state law.

Administrative Process and Reconsideration

19. Prior to issuing an order or deciding an issue that does not involve an imminent and substantial damage, the EMC shall provide the military with an opportunity to be heard.

20. If the EMC issues an order to cease or adjust an activity to avoid imminent and substantial damage, the EMC shall provide the military an opportunity to be heard on the matter within two (2) business days after issuing the order.

21. In the case of an order to abate an activity that causes or threatens to cause imminent and substantial damage to the drinking water supply or wildlife habitat, the Parties agree that the activity shall cease during the pendency of any request for reconsideration.

22. The military may request reconsideration of any decision or order of the EMC by submitting its concerns in writing. The EMC will consider all such requests. The EMC shall reconsider its decision or order, in light of all relevant information, and either affirm, amend, or reverse its decision or order and so indicate in writing within 30 days, unless such time is further extended by mutual agreement of the Parties.

Assumption of Duties

23. In the event the Massachusetts National Guard's license is terminated, the duties and obligations of the Massachusetts National Guard under this Agreement shall be assumed by the Army or any subsequent licensee of the northern 15,000 acres of the MMR.

Exclusion of PAVE PAWS and Coast Guard Transmitter Sites

24. This MOA shall not in any way affect the powers, rights, duties, and liabilities of the Parties with respect to the PAVE-PAWS site or the U.S. Coast Guard Transmitter site:

a. The PAVE-PAWS site, so called, consisting of approximately 87 acres as described in permit # DACA 51-4-81-475 issued by the U.S. Department of the Army to the U.S. Department of the Air Force; said site being a portion of land owned by the Commonwealth and leased to the United States of America, represented by the Department of the Army, as described in its lease contract # DACA 51-5-77-127 and associated supplemental lease agreements,

b. The United States Coast Guard Transmitter site, so called, consisting of approximately 542 acres and shown as "Parcel P" on a plan of land titled "Compiled Plan Showing Leased Areas at Camp Edwards Military Reservation," scale 1"=2000', dated September 30, 1982, and prepared by the United States Army Corp of Engineers; said site being a portion of land owned by the Commonwealth and leased to the United States of America, represented by the Department of Transportation,

1976.

Funding

25. The Parties agree to seek sufficient funding through their budgetary processes in order to share the costs of implementing this Agreement.

Anti-Deficiency Act

26. Any requirement for the payment or obligation of funds established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C §1341.

Amendment, Modification, and Termination of Agreement

27. This Agreement may be amended or modified solely upon the written consent of all Parties. Such amendments or modifications shall have as the effective date that date on which they are signed by all Parties and notice thereof is provided to each signatory. This Agreement shall remain in effect for as long as the Army continues to lease the northern 15,000 acres of the MMR, unless sooner terminated upon the mutual agreement of the Parties.

Other Claims

28. Nothing in this Agreement shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Agreement.

Enforceability


29. In addition to the rights and obligation arising under this Agreement, the Parties retain their rights and obligations under law. This Agreement shall be enforceable in accordance with applicable laws and regulations in any court of competent jurisdiction.

SIGNATURE PAGE FOLLOWS

NOW, THEREFORE, this 4th day of October 2001, the Parties so agree:

Commonwealth of Massachusetts


Department of the Army



Jane Swift
Governor

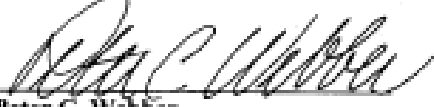

Raymond J. Fatz
Deputy Assistant Secretary of the Army
(Environment, Safety & Occupational Health)
Office of the Assistant Secretary of the Army
(Installations & Environment)



Bob Burand
Secretary
Executive Office of Environmental Affairs


Russell C. Davis
Lieutenant General, USAF
Chief, National Guard Bureau


George W. Keeffe
Brigadier General, USAF
The Adjutant General of the Massachusetts National Guard
and the Military Division of the Commonwealth


David M. Peters
Commissioner
Department of Fisheries, Wildlife, and
Environmental Law Enforcement


Peter C. Webber
Commissioner
Department of Environmental Management


Lauren A. Liss
Commissioner
Department of Environmental Protection



LEAGUE *of* UNITED LATIN
AMERICAN CITIZENS

Civil Rights Violation Regarding Forced Medication

WHEREAS, the League of United Latin American Citizens is this nation's oldest and largest Latino organization, founded in Corpus Christi, Texas on February 17, 1929; and

WHEREAS, LULAC throughout its history has committed itself to the principles that Latinos have equal access to opportunities in employment, education, housing and healthcare; and

WHEREAS, LULAC advocates for the well-being of, but not exclusively of, Hispanics throughout our country; and

WHEREAS, safe drinking water is a necessity for life; and

WHEREAS, the purpose of a public water supply is to supply water to the entire community which is composed of people with varying health conditions, in varying stages of life, and of varying economic status; not to forcibly mass medicate the population which is a civil rights violation; and

WHEREAS, fluoridation is mass medication of the public through the public water supply; and

WHEREAS, current science shows that fluoridation chemicals pose increased risk to sensitive subpopulations, including infants, the elderly, diabetics, kidney patients, and people with poor nutritional status; and

WHEREAS, minority communities are more highly impacted by fluorides as they historically experience more diabetes and kidney disease; and

WHEREAS, minorities are disproportionately harmed by fluorides as documented by increased rates of dental fluorosis (disfiguration and discoloration of the teeth); and

WHEREAS, the National Research Council in 2006 established that there are large gaps in the research on fluoride's effects on the whole body; a fact that contradicts previous assurances made by public health officials and by elected officials, that fluorides and fluoridation have been exhaustively researched; and

WHEREAS, a growing number of cities and health professionals have rejected fluoridation based on current science and the recognition of a person's right to choose what goes into his/her body; and

WHEREAS, the CDC now recommends that non-fluoridated water be used for infant formula (if parents want to avoid dental fluorosis – a permanent mottling and staining of teeth), which creates an economic hardship for large numbers of families, minority and otherwise; and

WHEREAS, the League of United Latin American Citizens (LULAC), founded in 1929, has historically been a champion of the disenfranchised and a leader in the fight for social and environmental justice; and

WHEREAS, City Council Districts 1-6 of San Antonio (predominantly minority districts) voted overwhelmingly that the public water supply should not be contaminated with fluoridation chemicals; and

WHEREAS, the election to fluoridate the water, essentially disenfranchised the right of these minority Districts to safe drinking water for all; and

WHEREAS, the U.S. Health and Human Services and the EPA (January 2011) have recently affirmed the NRC Study results that citizens may be ingesting too much fluoride and that the exposure is primarily from drinking water; and

WHEREAS, the proponents of fluoridation promised a safe and effective dental health additive, but the San Antonio Water System's (SAWS) contract for fluoridation chemicals proves a "bait and switch"; as SAWS is adding the toxic waste by-product of the phosphate fertilizer industry, that has no warranty for its safety and effectiveness for any purpose from the supplier (PENCCO, Inc.) or the source (Mosaic Chemical); and

THEREFORE, BE IT RESOLVED, that LULAC commends efforts by organizations that oppose forced mass medication of the public drinking supplies using fluorides that are industrial grade, toxic waste by-products which contain contaminants (arsenic, lead, mercury) which further endanger life; and

BE IT FURTHER RESOLVED, that LULAC supports efforts by all citizens working to stop forced medication through the public water system because it violates civil rights; and

BE IT FURTHER RESOLVED, that LULAC opposes the public policy of fluoridation because it fails to meet legislative intent; and

BE IT FURTHER RESOLVED, that LULAC demands to know why government agencies entrusted with protecting the public health are more protective of the policy of fluoridation than they are of public health.

Approved this 1st day of July 2011.

Margaret Moran
LULAC National President

AN ACT RELATIVE TO THE ENVIRONMENTAL PROTECTION OF
THE MASSACHUSETTS MILITARY RESERVATION.

*Be it enacted by the Senate and House of Representatives in General
Court assembled, and by the authority of the same, as follows:*

SECTION 1. As used in this act, the following terms shall, unless the
context otherwise requires, have the following meanings:-

"Commission", the environmental management commission established in
section 4.

"Environmental performance standards", the environmental performance
standards included in the final environmental impact report regarding the
activities on the northern 15,000 acres of the Massachusetts military
reservation, promulgated under sections 61 to 62H, inclusive, of chapter
30 of the General Laws and certified by the secretary of environmental
affairs on July 16, 2001.

"Massachusetts military reservation" or "MMR", approximately 22,000
acres of land owned by the commonwealth in Barnstable county
established under chapter 196 of the acts of 1935, chapters 320 and 344 of
the acts of 1936, chapter 5 of the acts of 1941, chapter 665 of the acts of
1955 and chapter 617 of the acts of 1956, and used primarily for military
purposes.

"Special military reservation commission", the commission provided with
jurisdiction over the MMR under chapter 196 of the acts of 1935.

"Upper cape water supply reserve" or "reserve", a parcel of land within the
MMR of 15,000 acres, more or less, owned by the commonwealth as
described in a plan prepared by the executive office of environmental
affairs and filed with the division of capital asset management and
maintenance; but the reserve shall not include a portion of the parcel
containing approximately 29 acres and associated corridors for providing
services and underground utility services, to be used in connection with
the construction and operation of a jail and house of correction as shown
on the plan.

SECTION 2. The Upper Cape Water Supply Reserve shall be public

use and training of the military forces of the commonwealth; provided that, such military use and training is compatible with the natural resource purposes of water supply and wildlife habitat protection.

SECTION 3. Notwithstanding any general or special law to the contrary, the commissioner of capital asset management and maintenance shall transfer the custody, care and control of the reserve, subject to any applicable lease agreements regarding the reserve, from the special military reservation commission to the division of fisheries and wildlife of the department of fisheries, wildlife and environmental law enforcement by August 1, 2002. The division of fisheries and wildlife of the department of fisheries, wildlife and environmental law enforcement may acquire care, custody and control of the reserve, subject to the requirements of this act and any applicable lease agreements regarding the reserve, for natural resource purposes, as limited and further described in section 2. The transfer shall include all books, records, documents, agreements, contracts, leases and other materials necessary for the commission to operate and manage the reserve.

SECTION 4. There is hereby created within the executive office of environmental affairs an environmental management commission. The commission shall consist of the following 3 ex officio members: the commissioner of the department of fisheries, wildlife and environmental law enforcement; the commissioner of environmental management; and the commissioner of environmental protection. Notwithstanding any general or special law to the contrary, but subject to any applicable lease agreements regarding the reserve, the commission shall oversee and monitor the military and other activities on the reserve in accordance with the purposes and provisions of this act.

SECTION 5. The purpose of the commission shall be to ensure the permanent protection of the drinking water supply and wildlife habitat of the reserve. The commission shall ensure, by oversight, monitoring and evaluation, that all military and other activities on the reserve are consistent with this purpose. The commission shall oversee compliance with and enforcement of the environmental performance standards, coordinate the actions of the environmental agencies of the

SECTION 6. The commission shall be assisted by 2 advisory councils:

(a) a community advisory council, which shall be comprised of the following members: 1 representative of each of the towns of Falmouth, Bourne, Sandwich and Mashpee; 1 family member resident of the MMR; 2 representatives of the military; 1 representative of the Cape Cod commission; 1 representative of the Upper Cape Regional Water Supply Cooperative; 1 representative of the Wampanoag Tribe; and 5 other members to be appointed by the governor, but the town representatives shall be recommended by the towns' respective boards of selectmen; the family member resident of the MMR shall be selected from among a list of 5 persons provided by the commander of the Coast Guard Air Station Cape Cod; the military representatives shall be recommended by the military division of the commonwealth; the Cape Cod commission representative shall be recommended by the Cape Cod commission; the Upper Cape Regional Water Supply Cooperative representative shall be recommended by the Upper Cape Regional Water Supply Cooperative; and the Wampanoag Tribe representative shall be recommended by the tribal leadership. The community advisory council shall assist the commission by providing advice on issues related to the protection of the water supply and wildlife habitat on the reserve, and (b) a science advisory council, which shall be appointed by the governor and shall be comprised of 5 to 9 scientists and engineers who are recognized for their expertise in the areas of public health, water protection, wildlife habitat management or land use management. The science advisory council shall assist the commission by providing scientific and technical advice relating to the protection of the drinking water supply and wildlife habitat on the reserve.

SECTION 7. The powers of the commission shall include, but not be limited to, the following:-

- (a) to hire staff, including an environmental officer;
- (b) to enter into contracts;
- (c) to acquire real or personal property or interests or rights therein if necessary for the management of the reserve;
- (d) to accept funds or property from any source, public or private, including gifts, bequests, grants, contributions and settlements, judgments, fines or penalties in order to assist in the discharge of its duties;

councils and as necessary for the effective performance of its responsibilities and duties under this act.

SECTION 8. The commission shall hire an environmental officer for the MMR. The environmental officer shall report to the commission. The duties and responsibilities of the environmental officer shall be to monitor the activities being conducted on, and the uses of, the reserve and the impact of such activities and uses on the water supply and wildlife habitat. The environmental officer shall also coordinate with appropriate personnel from the department of fisheries, wildlife and environmental law enforcement, the department of environmental management and the department of environmental protection to monitor and evaluate the environmental impact of activities conducted on and uses of the reserve. The personnel of the department of fisheries, wildlife and environmental law enforcement, the department of environmental management and the department of environmental protection shall support and assist the commission and cooperate with the environmental officer.

The environmental officer shall have an office located within the environmental readiness center or such other location on the MMR as may be appropriate to carry out his duties. The national guard shall provide such office space and allow the environmental officer, acting on behalf of the commission, regular and unrestricted access to all data and information from the various environmental and management programs and activities operating on the MMR. These programs and activities include, but are not limited to: the integrated training area management program; the integrated natural resources management plan; the integrated cultural resources management plan; Camp Edwards' standard operating procedures; and any other program or activity created by the army or the national guard for the purpose of managing or maintaining the northern 15,000 acres of the MMR. Access to data and information shall not include restricted or classified information, unless the environmental officer obtains the appropriate level of security clearance. The national guard shall use its best efforts to assist the environmental officer in obtaining the appropriate level of security clearance. The national guard shall also submit all draft and final impact area groundwater study reports to the commission for its information, as soon as they become available.

management and the department of environmental protection, shall access and inspect the reserve in order to monitor, oversee, evaluate and report to the commission on the environmental impact of military training and all other activities. As determined to be necessary by the commission, such access shall occur prior to, during and immediately following training or other activities upon notice, in accordance with Camp Edwards' standard operating procedures, regulations and security requirements.

SECTION 9. (a) The national guard shall provide the commission with an annual report describing in detail: (1) the nature and extent of military training and other activities; (2) all resource management activities; (3) the status of compliance with applicable federal and state environmental laws and regulations and the environmental performance standards; and (4) long-term trends in the major areas of resource management and activities. The commission shall make the report available to the public.

(b) The national guard shall notify the commission, in writing and within 2 business days after discovery, of any violation of an environmental performance standard. The notification shall include the nature and extent of the violation and any corrective action that has been taken or will be taken to return to compliance. With respect to a violation of federal or state law that is reported to a federal or state agency, the national guard shall provide the commission with a copy of any notice provided to the federal or state agency.

(c) The national guard shall notify the commission, in writing and within 2 business days after the discovery, of any damage or threat of damage to the drinking water supply or wildlife habitat, even if the damage results, or may result from, an activity that is otherwise compliant with law, regulation or environmental performance standards. Damage shall not include any insignificant damage to these resources, consistent with regulations promulgated by the executive office of environmental affairs pursuant to sections 61 to 62H, inclusive, of chapter 30 of the General Laws.

SECTION 10. (a) The commission shall evaluate all information and data regarding the activities and uses of the reserve and the environmental impact upon the drinking water supply and wildlife habitat of the reserve and may take action, as described in subsection (b) and (c). The

(b) If the commission determines that a user has violated or is violating an environmental performance standard, the commission shall notify the violator of the violation and may: (1) in the case of imminent and substantial damage, order that any activity creating a violation cease immediately, or require adjustments in the activity to eliminate the imminent and substantial damage or threat of damage; or (2) in all other cases, require the violator to return to compliance within a reasonable time and to notify the commission of the corrective action taken, including steps to ensure future compliance. Repeated or willful violations of an environmental performance standard may result in sanctions including cessation of activities.

(c) If the commission determines, based upon sound and accepted scientific analysis and evidence, that an activity that is otherwise compliant with law, regulation or environmental performance standards, is causing or threatens to cause imminent and substantial damage to the drinking water supply or wildlife habitat of the reserve, the commission may: (1) order such activity to cease immediately; or (2) require adjustments in the activity to eliminate the imminent and substantial damage or threat of damage.

(d) After consultation with the science advisory council and the community advisory council, the commission may adjust environmental performance standards based upon sound and accepted scientific analysis, monitoring data and other relevant information. The proponent of any adjustment shall bear the burden of justifying the proposed adjustment and demonstrating that the proposed adjustment is protective of the drinking water supply and wildlife habitat. If the commission determines that a proposed adjustment may be warranted and does not significantly reduce the standard of environmental protection, it shall publish a notice of availability of the proposed adjustment to the environmental performance standards in the *Environmental Monitor* published by the executive office of environmental affairs, furnish copies to all members of the community advisory council and the science advisory council, and accept public comment for a period of at least 30 days following the publication date. Thereafter, the proposed environmental performance standard will become effective on a date determined by the commission. The commission shall not consider adjustments to the environmental performance standards prior

imminent and substantial damage or for national security reasons.

SECTION 11. (a) Prior to issuing an order or deciding an issue that does not involve imminent and substantial damage, the commission shall provide the military with an opportunity to be heard.

(b) If the commission issues an order to cease or adjust an activity to avoid imminent and substantial damage, the commission shall provide the military an opportunity to be heard on the matter within 2 business days after issuing the order.

(c) The military may request reconsideration of any decision or order of the commission by submitting its concerns in writing. The commission shall consider all such requests. The commission shall reconsider its decision or order, in light of all relevant information, and affirm, amend or reverse its decision or order and so indicate in writing within 30 days, unless such time is further extended by mutual agreement of the parties.

The Massachusetts national guard shall comply with all decisions and orders of the commission, provided such decisions or orders do not conflict with federal or state law.

The Massachusetts national guard and any other user of the reserve shall immediately cease or adjust any activity that, in the determination of the Massachusetts national guard, causes or threatens to cause imminent and substantial damage to the drinking water supply or the wildlife habitat.

In the case of an order by the commission to abate an activity that causes or threatens to cause imminent and substantial damage to the drinking water supply or wildlife habitat, the Massachusetts national guard shall cease the activity while any request for reconsideration is pending.

SECTION 12. The state environmental agencies on the commission retain all their respective, independent enforcement authority. In response to an enforcement action brought by one of the state environmental agencies, including the department of fisheries, wildlife and environmental law enforcement, the department of environmental management and the department of environmental protection, members of the commission shall work together to implement coordinated actions at the reserve. In order to avoid, minimize and mitigate any negative impacts, they shall, in good

SECTION 13. There shall be established and set up on the books of the commonwealth a separate fund to be known as the Upper Cape Water Supply Reserve Trust Fund to be administered and expended by the commission. Expenditures may be made from the trust fund, without further appropriation, for the costs associated with activities deemed appropriate by the commission in furtherance of its powers as described in this act. The fund shall retain all interest earned on sums deposited. The fund may receive such funds as may be appropriated from time to time, as well as gifts and grants of money or other contributions from any source, either public or private, and settlements, judgments, fines or penalties not designated by law for other specific purposes, to be expended for the purposes of the fund.

SECTION 14. Nothing in this act shall in any way affect existing rights, duties and liabilities as they have been or may be determined in the future relating to any pollution or other contamination of the Upper Cape Water Supply Reserve, including but not limited to contamination of soil, groundwater, surface water, current or potential drinking water supplies or the existence of unexploded ordnance, whether arising under federal, state or local law, including any statute, regulation or judicial or administrative order or decision, or under any contract or lease. This act shall not be construed to lessen or alter in any way the obligation in any lease between the United States of America, acting through any of its agencies, and the commonwealth requiring that the United States, or any agency or subdivision thereof, decontaminate lands where it terminates any lease in whole or in part. Nothing in this act shall be construed as an admission of liability for contamination of lands and waters of the reserve.

SECTION 15. Nothing in this act shall be construed to affect or modify any rights, duties, obligations or ongoing activities of the air force and coast guard within the reserve at the following locations:-

(a) the PAVE-PAWS site, so-called, consisting of approximately 87 acres as described in permit #DACA 51-4-81-475 issued by the United States Department of the Army to the United States Department of the Air Force; the site being a portion of land owned by the commonwealth and leased to the United States of America, represented by the Department of the Army, as described in its lease contract #DACA 51-4-81-475 and associated supplemental lease agreements; and

Reservation" scale 1"=2000', dated September 30, 1982, and prepared by the United States Army Corps of Engineers; the site being a portion of land owned by the commonwealth and leased to the United States of America, represented by the Department of Transportation, United States Coast Guard, as described in its lease document #31836.

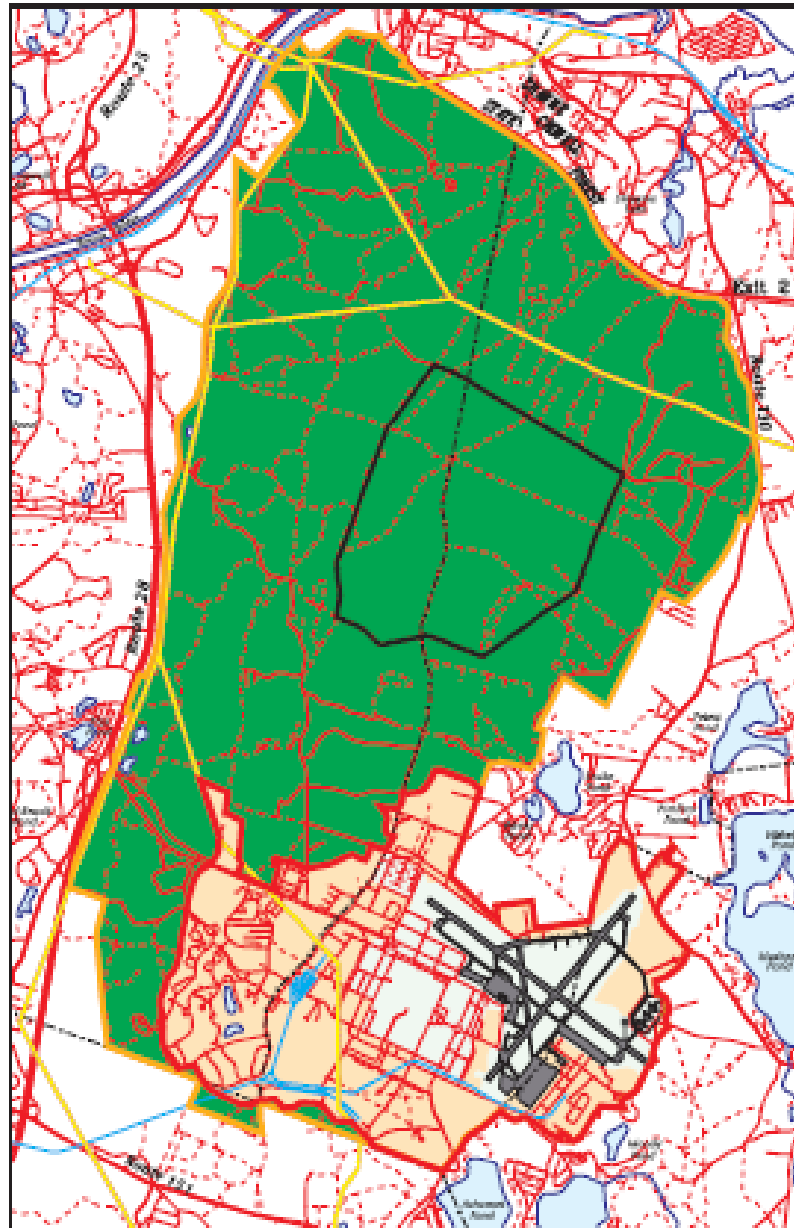
SECTION 16. The Massachusetts army national guard shall have priority in the traditional training areas within the northern 15,000 acres of the MMR.

Approved March 3, 2002.

Massachusetts Military Reservation Master Plan Final Report

September 8, 1998

EXECUTIVE SUMMARY



Prepared in conjunction with the Community Working Group
by the Cape Cod Commission

*Massachusetts Military
Reservation Master Plan
Final Report*

Executive Summary

*Prepared in conjunction with the
COMMUNITY WORKING GROUP
by the
CAPE COD COMMISSION*

This project was funded through a grant from the Massachusetts Executive Office of Environmental Affairs.

September 8, 1998

Cape Cod Commission
September 1998

Herbert Olson, Chair, *OTISDA*
Tom Boisdriek, Vice Chair, *YIPPOUSH*
Frank Shephard, Secretary, *FALMOUTH*
Summer Kaufman, *BARNSTABLE*
Robert D. Deane, *BORNE*
(vacant), *BREWSTER*
William Riley, *CHATHAM*
Rob O'Leary, County Commissioner
Joe Travelo, *DEWITT*
Vicky Bebout, *ESSEX*
(vacant), *Governor's Appointee*
Sylvia Laffin, *HARVARD*
(vacant), *MALDEN*
Bob Randolph, *MILFORD*
Gloria Brandage, *Native American*
Gwen Bloomingdale, *PROVINCETON*
Jay Schladeger, *STURBRIDGE*
Kenneth Brock, *TUFTS*
David Ernst, *WELLFLEET*

Cape Cod Commission Staff Contributors:

Armando Carbonell, Executive Director
Marjo Fenn, Deputy Director
Sharon Rooney, Senior Planner
Gary Pruban, Systems Manager
Ben Smith, GIS Analyst
Paul Tilton, Transportation Engineer
Tom Cambasari, Water Resources Program Manager
Gabrielle Bellit, Hydrologist
Van Merrill, Water Resource Assistant
Kathy Sierra, Natural Resources Planner
Heather McElroy, Planner
Christine LeMay, Planner
Jim O'Connell, Economic Development Officer
Nancy Hensfield, Communications Coordinator
Gail Hanley, Head Clerk

For additional copies of this document, contact the Cape Cod Commission, 3225
Main Street, P.O. Box 220, Barnstable, MA 02630.
(508) 362-3828
FAX: (508) 362-3130
E-mail: provincetown@capecodcommission.org

Community Working Group Members

Marion McConnell, Chair - *At Large, Barnstable*
Representative Thomas Cahir - *At Large, Bourne*
Haydon Coggeshall - *Bourne Selectmen*
Russell Cookingham - *At Large, Bourne*
Major Richard Crivello - *Army National Guard*
Betty Diener - *At Large, Eastham*
David Dow - *Cape Cod Sierra Club*
Joseph Griffith - *At Large, Falmouth*
Robert Jones - *Sandwich Selectmen*
Judith Koerig - *Cape Cod Economic Development Council*
Ken Marsters - *Mashpee Selectmen*
Martine Meijering - *At Large, Mashpee*
Commander Christopher Mills - *U.S. Coast Guard*
Richard Prince - *Cape Cod Commission*
Virginia Rasmussen - *At Large, Yarmouth*
Senator Henri Rauschenbach - *At Large, Brewster*
Lillian Spongberg - *League of Women Voters*
Wendy Northcross - *Cape Cod Chamber of Commerce*
Cliff McDonald - *102nd FW, Air National Guard*
Pamela Truesdale - *Coalition for Buzzards Bay*
Virginia Valiela - *Falmouth Selectmen*
Susan Walker - *Association for the Preservation of Cape Cod*

Foreword

In the Spring of 1997, the Cape Cod Commission proposed to the Executive Office of Environmental Affairs that it fund a master planning process for the 20,000-acre Massachusetts Military Reservation (MMR), located in the towns of Bourne, Sandwich, Falmouth, and Mashpee, through its new Municipal Growth Planning grants program. In awarding that grant, Secretary Trudy Coxé set in motion a unique planning effort that for a year engaged representatives of the entire Cape Cod community, including citizens and elected officials and military and civilian agency personnel. During that year, the Community Working Group, appointed by Secretary Coxé and chaired with great energy and tact by Mimi McConnell, contributed uncounted hours in bringing the public together around a set of guiding principles for the future of the MMR.

The MMR represents the single greatest land-use planning opportunity on Cape Cod today. Although known to many for a Superfund site that has contaminated an estimated 66 billion gallons of groundwater, the MMR also contains the largest potential future water supply site on Cape Cod, as well as the largest area of unfragmented forest habitat not permanently protected. In our grant proposal, we said we would take a regional approach to protecting the quantity and quality of this future water supply, protect natural resources, ensure that the transportation network is capable of handling future development, and determine appropriate economic development strategies. Our larger goal was to achieve consensus on the long-range military and civilian uses of the reservation for the foreseeable future. To a remarkable degree, that goal has been achieved.

Although a great deal of public attention during the past year has been focused on two specific projects proposed for the MMR, a new County Jail and a Steamship Authority Parking Lot, the Community Working Group considered an impressively broad range of other potential uses. In addition to identifying potential sites for a jail and temporary parking lot, the group recommended including in the master plan, subject to further environmental review: an environmental technology center, playing fields and other recreational uses,

a cultural/historical/educational center, and four of the ten military projects originally proposed. (Five of the military projects had been canceled by Acting Governor Paul Cellucci, and one withdrawn by the military because it was no longer needed.) Other recommendations to consolidate military activities and improve infrastructure will benefit those who live and work at the MMR, as well as those in the larger community.

The recommended new and replacement uses have been concentrated in and adjacent to the cantonment area, 3,000 acres in the intensely developed southern portion of the MMR, with careful attention to the continued management of rare grassland habitat. This has made it possible for the Community Working Group to recommend permanently reserving the northern 13,000 acres for water supply, wildlife, open space, and compatible military activities. Even as we begin the further refinement and implementation of this plan, a new land-use map of Cape Cod is emerging, with these 13,000 acres colored a deep, permanent green.

With gratitude to Trudy Coxo and her staff and all who participated in the planning, especially Mimi and the Community Working Group, Sharon Rooney and the Cape Cod Commission staff, and Colonel John Jenner, MAAERNG,

Armando Carbonell
Executive Director
Cape Cod Commission

Community Working Group

PO BOX 987, Barnstable, MA 02630-0987

September 7, 1998

Dear Citizens of Cape Cod,

One year and nine days after the 22 of us on the Community Working Group (CWG) began our work to create a master plan for the Massachusetts Military Reservation (MMR), we reached consensus and accepted the plan on August 17, 1998. For helping us shape this blueprint for the MMR's long-term future, we wish to thank the hundreds of citizens who came to our six public hearings or wrote or called us with ideas. This public participation, plus the diversity and dedication of those serving on the CWG, made for an effective, positive outcome.

As we began our work the preceding August, we were struck by the enormity and urgency of our work—not to mention an initial terror for some of us over the responsibility we had accepted when appointed by Secretary of Environmental Affairs Trudy Coxe. We knew we had to take the longest view possible of what these irreplaceable 20,000 acres (nearly one tenth of the Cape) mean to the future of not only the Upper Cape but the entire peninsula.

Increasingly stressed by population growth and unbridled development, Cape Cod is at a crossroads, and we felt this deeply as we weighed the myriad ideas presented for future uses of the base. Early on, we were cautioned by the public not to let the MMR be a dumping ground or carved up to satisfy narrow interests, but rather to regard the base as a gift to be passed on to future generations. We agreed with the public that the base must not be squandered to lessen problems we have collectively brought on ourselves elsewhere on the Cape. And most of all, we concurred with the public that protection of future water supply is far and away the number one priority for the MMR.

We are therefore recommending to the Commonwealth that the upper 15,000 acres of the MMR be given permanent protection as open land—protected and managed for water supply, wildlife habitat, open space values, and military uses, if compatible. The lower 5,000 acres would still accommodate a combination of military and civilian uses, including Coast Guard and National Guard activities and ongoing environmental clean-up efforts. We allotted space for playing fields, an environmental technology center, a cultural/educational center, a possible new courthouse, a new air tower and fire station, a maintenance

area for military equipment, and a cemetery for Mashpee. We also sited a new jail and allotted modest space for a temporary Steamship Authority parking lot. Serving as a yardstick for all our deliberations were 21 guiding principles adopted in February.

We did not site a commercial airport, a golf center, a four-lane highway across the top of the base, a commercial area, residential housing, or other uses we thought incompatible.

Importantly, Governor Paul Cellucci during a May visit vetoed five Army National Guard projects proposed for the northern portion of the base and promised to help the Guard find training areas elsewhere. As regards future military presence in the upper 15,000 acres, although that decision will ultimately be made by state and federal officials, we CWG members have created a context for that decision by focussing our attention on future water supply protection and by recommending to the Commonwealth that all leases and licenses at the base be reviewed and amended, if necessary, to conform to the master plan. It is important to note here that the National Guard is still working on some master plan issues affecting them; all will be incorporated into one environmental review document in early 1999.

Throughout our complicated deliberations, we were superbly supported by the Cape Cod Commission, who staffed our work in countless ways, organizing and putting our ideas on paper, preparing maps to educate us and the public, suggesting solutions to knotty problems, providing analyses of water, traffic and other pertinent factors, as well as producing the master plan document.

We found the MMR personnel gracious in accommodating our meetings and in giving us tours of the base. We thank them kindly.

We are still functioning as the Community Working Group, on an as-needed basis. We wish to have a say in shaping an oversight committee that will serve as watchdogs in the future, assuring that the master plan is followed for the benefit of all Cape Codders, present and future.

On that note, I will share a quote I gave to the CWG at our first press conference in 1997, from the Great Law of the Iroquois Confederacy: "In our every deliberation, we must consider the impact of our decisions on the next seven generations."

We have put our hearts and minds into doing just that in preparing this master plan!

Sincerely,



Marion McConnell
Chair, Community Working Group

Executive Summary

TABLE OF CONTENTS

<i>Foreword</i>	v
<i>Letter from the Chair of the Community Working Group</i>	vii
Development of a New Master Plan	1
Background.....	1
Military Projects Review.....	4
Proposed Civilian Projects / Uses.....	5
Proposed Land Use / Management Zones.....	11
Cantonment Area Plan.....	11
Implementation	13
Environmental Review Process.....	13
Water Supply Protection, Development and Management.....	16
National Wildlife Refuge Proposal.....	16
MMR Oversight.....	17
Master Plan Report Approval and Review of Leases.....	17
 <i>Figures:</i>	
Figure 1. Proposed Jail Sites Recommended by CWG.....	8
Figure 2. Proposed Steamship Authority Parking Sites Recommended by CWG.....	10
Figure 3. Management Zones.....	13
Figure 4. MMR Cantonment Area Study Plan.....	14

Development of a New Master Plan

Background

A glance at almost any map of Cape Cod reveals a massive wooded area on the Upper Cape that is largely undeveloped, but fringed with highways, homes and other development. This area, known formally as the Massachusetts Military Reservation (MMR), consists of approximately 20,000 acres, located in the upper Cape towns of Sandwich, Bourne, Mashpee and Falmouth. Home to the Army and Air National Guard, U.S. Coast Guard, and a number of other agencies, the MMR has been used for over a half century for a variety of military training activities. In recent years the MMR has become widely known for its groundwater contamination problems. It was declared a Superfund site in 1989. Perhaps less well known is its recognition by the Massachusetts Natural Heritage Program as one of the most ecologically significant areas in the northeastern United States.

Future uses of the MMR — both military and civilian — are of great interest to Cape Codders. Decisions about the fate of this area will have a tremendous impact not only on the four communities in which the MMR lies, but on Cape Cod as a whole.

In Spring 1998, the Massachusetts Executive Office of Environmental Affairs (EOEA) found that the draft Environmental Impact Report/ Environmental Impact Statement for specific military projects at the MMR was inadequate. Because of the complexity of the project, a special review procedure was established for an overall Master Plan for the MMR. The Master Plan Report has been prepared through the cooperative efforts of a Community Working Group comprised of Cape Cod residents, National Guard and Coast Guard personnel, state officials, members of the Cape's legislative delegation, the Cape Cod Commission, and hundreds of Cape Codders who took the time to participate in public hearings and submit thoughtful comments.

The overall vision articulated by this Master Plan Report is to focus future civilian and military development in or near the Cantonment Area, a 3,000-acre area in the southern portion of the MMR, while protecting the rare grassland habitat located in this area. This would allow approximately 13,000 acres in the northern portion of the MMR (approximately 3/4 of the MMR) to be reserved primarily as open land to be protected and managed for water supply, wildlife habitat, open space and compatible military uses.

In June 1997 the Executive Office of Environmental Affairs awarded a \$73,000 grant to the Cape Cod Commission to work with the Community Working Group and the military to prepare the Master Plan Report. The goal of the Master Planning process was to achieve consensus on the long range military and civilian uses of the MMR. The final product was to include a future land use plan for the reservation, an analysis of the capacity limits of the natural resources and infrastructure of the base and surrounding communities, a plan for future water supply and a plan for open space.

The major issue associated with the MMR for the last two decades has been the clean up of contaminated groundwater. Finding new sources of water is increasingly more difficult for the Upper Cape Water Districts as suitable land is developed and environmental regulations become more stringent. In order to meet future demands, it is imperative that the Upper Cape arrive at a regional water resource management plan that will guarantee sources of high quality untreated drinking water without compromising the ecological integrity of the aquifer and its associated surface waters.

The Community Working Group (CWG) held a series of public hearings between October 1997 and July 1998 to solicit input from Cape Codders on proposed future uses and activities on the MMR. The public hearings helped create a vision for the overall Master Plan Report. The public overwhelmingly supported protection of the MMR for future water supplies for the four Upper Cape towns.

In response to comments raised at the public hearings, the CWG adopted Guiding Principles for the MMR Master Plan Report in February 1998 (see next page). These Guiding Principles represented a consensus by the members of the CWG and provided a framework for evaluation of proposed future uses and projects at the MMR, as well as the overall Master Plan Report.

GUIDING PRINCIPLES FOR THE MMR MASTER PLAN REPORT
Adopted February 28, 1998

- The goal of the Master Planning process is to achieve consensus on the long range uses on the MMR for the foreseeable future.
- The planning process will involve full participation by all interested parties and will serve as a Cape Cod model for community-level conflict resolution.
- The Plan will be comprehensive, including both future civilian and military uses of the MMR.
- Cumulative environmental impacts will be considered in making decisions about future uses.
- Economic impacts will be considered in evaluating proposed uses.
- The Barnstable County Regional Policy Plan, Local Comprehensive Plans and Water District plans of surrounding towns, as well as military plans and policies will be used as a guide in the planning process.
- Resource management and carrying capacity issues will have priority in the planning process.
- Future uses will be consistent with sustainable development principles.
- The Plan will protect existing and future drinking water supply areas by protecting their Zones of Contribution.
- The Plan will protect surface water resources by providing buffers around these areas and protecting them from adverse hydrologic impacts.
- The Plan will take into account what has been learned about contamination of the MMR through the Installation Restoration Program and will not hinder ongoing clean up, containment and/or monitoring of contaminated areas.
- The Plan will incorporate the results of ongoing groundwater studies, including the Impact Area Groundwater Study and the Regional Water Supply Study and Development of MMR and Upper Cape Cod.
- The Plan will propose uses that minimize adverse impacts on rare species habitat and enhance management of these and other important habitats.
- The Plan will minimize fragmentation of forest habitat and other natural areas.
- The Plan will foster the creation of permanent open space areas, linking existing forests and refuges within and adjacent to the MMR.
- The Plan will support the development of non-polluting alternative energy sources on the MMR.
- Proposed uses will demonstrate that adequate infrastructure exists or can be provided to serve the proposed use while minimizing impacts to natural resources or community character.
- Impacts on residential areas by proposed uses will be minimized.
- Proposed uses will respect and/or reflect the history and traditions of Cape Cod.
- Proposed uses will minimize impacts to areas of archaeological significance.
- The Plan recognizes the role of military operations and public safety at the MMR and seeks to successfully integrate those operations with environmental protection.

Military Projects Review

The CWG evaluated 10 projects originally proposed by the Massachusetts National Guard for their consistency with the Guiding Principles for the MMR Master Plan Report. Each of the projects included two or three alternative locations for consideration. The proposed projects were as follows:

Military Range Projects

Modified Record Fire Range (MRFR): Live-fire qualification range used to train and qualify soldiers on the M16 rifle.

Multi-Purpose Machine Gun Transition Range (MPMR): Live-fire range designed to train and qualify soldiers on various machine guns and the sniper rifle.

Infantry Squad Battle Course (ISBC): Live-fire range where infantrymen conduct small group tactical movements and attack mock enemy positions using M16 rifles and various machine guns.

Military Operations on Urbanized Terrain-Military Assault Course (MOUT-MAC): Live-fire range designed to train individuals or small groups on specific techniques used in urban combat situations using M16 rifles and machine guns.

Military Operations on Urbanized Terrain-Collective Training Facility (MOUT-CTF): Continuation of MOUT-MAC, using group training techniques.

Military Cantonment Projects

Unit Training Equipment Site (UTES): A facility to store and maintain vehicles and equipment used for troop training at Camp Edwards, designed to renovate or replace existing UTES.

Airfield Control Tower: A 330 square foot (s.f.) five-story control tower and air traffic control cab which houses controllers and equipment.

Aircraft Generation Unit Facility (AGU): An 18,000 s.f. hangar, workshop and office space for minor pre-flight maintenance and repair of aircraft assigned to MMR.

Fire Station: A 25,000 to 27,000 s.f. facility in the vicinity of the existing fire station due to its proximity to airfield operations and shortest response time to airfield and cantonment areas of MMR.

Environmental Facility: An 8,000 s.f. facility to house Air National Guard (ANG) environmental management and Installation Restoration Program (IRP) staff.

During the Master Plan process, Acting Governor A. Paul Cellucci, citing concerns about groundwater protection, removed from further consideration the five range projects proposed by the Army National Guard. Also during the process, the Air National Guard withdrew the Environmental Facility project because they no longer needed it. Remaining for further consideration in the Master Planning process was the Unit Training Equipment Site (UTES), Airfield Control Tower, Aircraft Generation Unit Facility (AGU), and Fire Station.

In June 1998 the CWG recommended the Airfield Control Tower, Aircraft Generation Unit, and Fire Station proposed by the Air National Guard for further environmental review and inclusion in the Master Plan Report. In July 1998 the CWG recommended several possible sites for consideration by the Commonwealth of Massachusetts for a consolidated vehicle maintenance facility (UTES) for use by the Army National Guard in the cantonment area.

Proposed Civilian Projects/Uses

The public offered suggestions for numerous future uses of the MMR during the public hearings. The CWG carefully considered every idea offered. Criteria used by the CWG to screen potential uses for further consideration included: uses that provide a public or community benefit; compatibility with ongoing military activities in the cantonment area; potential impact on surrounding residential areas; land area needed for the proposed use; potential impact on existing and potential water supplies; potential impacts on natural resources and wildlife habitat; potential traffic impacts; projects that involved the potential reuse of existing buildings; and community support.

Virtually everyone involved in the process stressed that the MMR should not be a future location for new residential, commercial or industrial development because there were ample opportunities for these types of development elsewhere in the towns. The CWG also believed that these uses would generate significant traffic and create potential conflicts with ongoing military operations. After a full review, the following projects were screened by the CWG for further evaluation and incorporation into the Master Plan Report. The CWG evaluated each of the following uses in terms of required land area, environmental impacts (e.g., traffic, water, sewage, habitat), community support and consistency with the adopted Guiding Principles for the Master Plan Report:

Multi-Purpose Ballfields: Construction of up to 10 playing fields, including soccer, football and baseball/softball for use by the general public and base personnel.

Recreational Trails: Development of Cape Cod Pathways trail linkages through the MMR which would provide an east-west linkage from Sandwich to Bourne, as well as a north-south linkage with the town of Falmouth.

Golf Course: Construction of an 18-hole executive course, such as a par 3 type course, adjacent to the existing Coast Guard golf course.

Environmental Technology Center/Research Facility: A total of 75,000 to 150,000 s.f. on approximately 40 acres of land located on South Outer Road for a variety of research and technology uses.

Upper Cape District Courthouse: A 15-acre site for potential development of a District Court facility to serve the Upper Cape.

Cultural and Educational Center: Development of a center for peace / conflict resolution, indigenous peoples, and / or a military history museum.

Mashpee Town Cemetery: An approximately 20- to 25-acre site proposed for a town cemetery located north of Kittredge Road near the Falmouth gate.

Alternative Energy Facility: Development of wind power in the northern portion of the MMR.

In addition, the Community Working Group reviewed a series of proposed sites for two other key regional facilities: the Barnstable County Jail and House of Correction and the Steamship Authority Parking Lot.

Barnstable County Jail and House of Correction

Initially, a site on the northeastern edge of the MMR, adjacent to Route 130 in Sandwich, was proposed. The Sandwich site was reviewed by the CWG at several meetings; however, after extensive discussion, the CWG recommended that a jail and correctional facility at this site be reviewed within the context of the Master Plan Report. Acting Governor Paul Cellucci later required that the site be withdrawn based on community opposition. This opposition stemmed from concerns about the site's proximity to potential water supplies on the MMR as well as other environmental and community impacts.

A few months after the Sandwich site was withdrawn, state and county officials unveiled three additional alternatives on the MMR that had been agreed to by military officials. Site 1 was located near the radar station known as the FAVE PAWS installation at the northern end of

the base. Sites 2 and 3 were located in the southeast corner of the base near the wastewater treatment facility. For the next several months, the CWG reviewed the three alternatives in detail. Sites 1, 2, and 3 were the subject of discussion in each of the four towns surrounding the base. Local officials and residents expressed concern for the proximity of alternatives 2 and 3 to Coast Guard housing and residential areas just outside the Falmouth gate and potential traffic impacts from the facility. Based on input from the surrounding communities, the CWG urged the military to work with Commission staff to develop additional alternatives for consideration.

Commission staff met with military and Coast Guard officials in July 1998 to explore additional alternative jail sites on the base. Based in part on the Guiding Principles for the Master Plan Report, the following criteria were used to evaluate additional alternative jail sites:

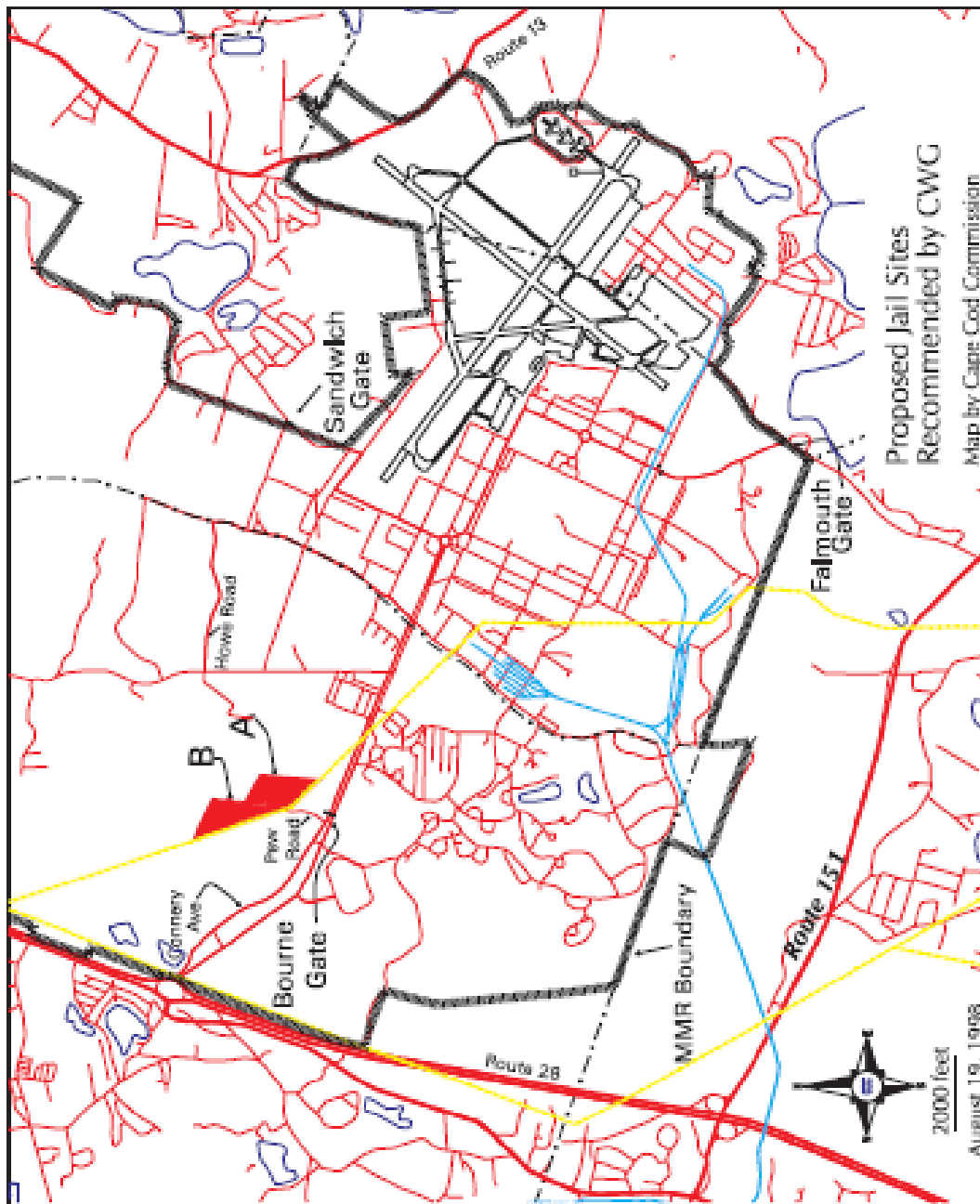
- location within or close to the cantonment area
- adequate distance and buffering from residential uses
- location outside of accident potential zones (air safety)
- no identified rare or endangered species on site
- safe access that minimizes traffic conflicts
- access to sewage collection and treatment facilities
- gentle topography

On July 24, 1998, the CWG recommended three sites for further environmental review by the Commonwealth of Massachusetts for the new Barnstable County Jail and House of Correction: Two sites (A and B) on Few Road (north of Connery Avenue) near the western edge of the base, and another site (C) at the corner of Howe and Turpentine Roads, adjacent to the current Army Guard vehicle maintenance area (UTES). (See Figure 1.) Upon adoption of these additional alternatives, the CWG did not recommend further environmental review of sites 1, 2, and 3. On August 17, 1998, the Howe Road site (Site C) was also dropped from consideration after objections from neighboring Sandwich residents.

Steamship Authority Parking

A parking facility for the Woods Hole-Martha's Vineyard Steamship Authority (SSA) was the other project considered by the CWG prior to completion of the Master Plan Report. The SSA approached the military for a remote parking facility on the MMR to accommodate a total of 4,800 parking spaces on approximately 35 to 40 acres of land to be built in phases over the next several years. The remote parking facility was the subject of extensive discussion during the Master Planning process.

Figure 1



The SSA presented a proposal to the CWG for a 4,800-car parking facility on the western edge of the base north of Connery Avenue. SSA proposed access to the site from Fredrickson Road, an existing dirt road which would be widened and paved in order to accommodate the proposed parking facility. CWG and state officials expressed concern for potential environmental impacts associated with the proposal, including fragmentation of an important greenbelt on the base and impacts to rare species habitat associated with the ponds. In January 1998 the CWG recommended that the Steamship Authority parking not be given accelerated review status.

The SSA submitted a revised proposal to the CWG in February 1998. In this modified proposal, all parking was located within a utility line right-of-way, also on the western edge of the base, with proposed access via Fredrickson Road. The CWG expressed similar concerns with the revised proposal as with the original plan and rejected both as inconsistent with the Guiding Principles of the Master Plan Report.

Recognizing the community's strong desire for the Master Plan Report to address the SSA parking issue, the CWG encouraged the SSA to work with military officials and Cape Cod Commission staff to find alternative sites within the cantonment area of the base. The CWG stressed that the Group would only support a temporary parking facility and that more permanent solutions needed to be addressed by the SSA through development of a long-range regional transportation plan.

In July 1998 the CWG recommended three sites for further environmental review by the Commonwealth of Massachusetts as a temporary parking lot on the MMR to accommodate no more than 900 cars, for a period of not more than three years. (See Figure 2.)

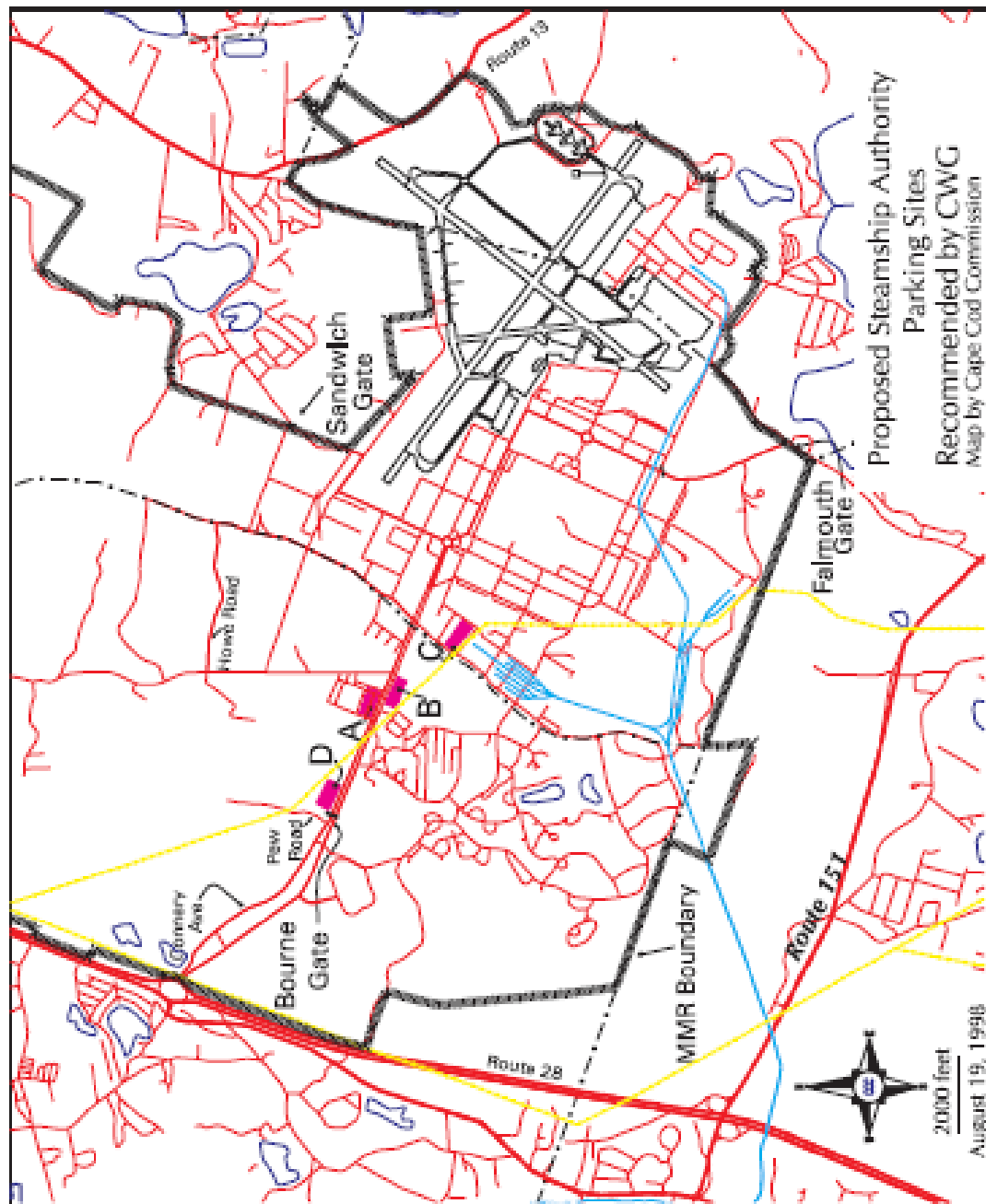
All alternatives assumed use of the Main (Bourne) Gate for all Steamship Authority traffic. The following alternatives were recommended:

Site A is located north of Connery Avenue, in the front portion of the 3600 area currently used by the Army National Guard as a convoy staging area.

Site B is located south of Connery Avenue between the Veteran's Administration National Cemetery eastern boundary and Army National Guard Leadership Reaction course.

Site C is located on Turpentine Road and Howard Road, in the 3500 area, adjacent to an area used by the Army National Guard as an administrative area for convoy staging.

Figure 2



In addition to these sites, the CWG agreed to include a fourth temporary site if constructed in conjunction with potential jail sites A and B (Few Road).

Proposed Land Use/Management Zones

The Master Plan Report for the MMR consists of three management zones for the approximately 20,000-acre military reservation. The largest management zone, which comprises about 13,000 acres in the northern portion of the MMR, is for the permanent protection and coordinated management plans for water supply, wildlife, and open space protection, consistent with necessary and compatible military activities. A second management zone totaling approximately 1,700 acres surrounds the base airfield. This management zone is designed to enhance and protect existing grasslands habitat for rare species. The plan proposes to gradually eliminate underutilized base roadways within the grassland management zone to improve the quality of this habitat and reduce infrastructure maintenance costs. The third management zone consists of approximately 3,300 acres in the cantonment area of the base for new development. (See Figure 3.)

Cantonment Area Plan

The cantonment area plan provides for the consolidation and improvement of existing military and Coast Guard facilities while allowing for the proposed uses evaluated during the planning process. (See Figure 4.) Proposed new uses surround existing grassland habitat in a campus-like setting. The plan also incorporates redevelopment of existing buildings and use of already disturbed sites.

The following general use categories have been identified on the cantonment area plan for new development:

Coast Guard Housing Area: Additional open space/recreational areas as well as facade and design improvements to existing housing units are identified to improve the quality of life for the residents of the MMR. In addition to these improvements, existing resident support facilities are proposed to be relocated closer to base housing. Additional services in a village style development pattern are proposed to create a more compact form of development and allow residents to walk to various services. Additional recreational facilities for nearby base schools could also be considered.

Army National Guard Support Facilities: Existing Army National Guard support facilities are proposed to be consolidated into one area in the cantonment area plan.

Air National Guard Support/Environmental Services: Consolidation of these activities in two areas adjacent to the airfield are proposed. An additional gate to separate Air National Guard from potential civilian activities may be considered.

Open space/recreation: Potential uses include a golf course, ballfields, as well as other active/passive recreational uses.

Technology/Institutional/Infrastructure: Potential uses include an Upper Cape district court, Mashpee town cemetery, environmental technology and medical research uses, as well as the existing sewage treatment and transfer station.

Government Agencies: Uses such as U.S. Department of Agriculture as well as other state or county health, testing and research activities.

Cultural/Educational Center: Uses proposed for the center of the cantonment area overlooking the grassland habitat management zone. This center could be for a variety of educational and cultural programs as well as conflict resolution/peace programs.

Veteran's Administration National Cemetery: Expansion area identified in cantonment area plan.

Implementation

Environmental Review Process

Completion of the MMR Master Plan Report brings us to a turning point in the environmental review process. As the Massachusetts National Guard proceeds to prepare a DEIR/DEIS on the Master Plan (for which, we are told, an extension to January 1999 has been granted) it is appropriate for the Secretary to consider necessary community projects included in the Master Plan Report that should begin preparation of their own DEIRs. (The cumulative impacts of these projects will be addressed in the Guard's DEIR/DEIS). The Barnstable County Jail, which figured so prominently in the CWG's deliberations is an obvious example of such a project. The arguments for placing the environmental review process for future water supply wells on the MMR on an independent track are even more compelling (see Water Supply Protection, Development and Management section below).

Although submission of the draft MMR Master Plan Report to EOEa marks the completion of a major chapter in the history of the MMR, and of Cape Cod, the work of the Community Working Group is not at an end. The Certificate of the Secretary of Environmental Affairs creating the CWG (May 30, 1997) indicates that the CWG "is needed to assure adequate public participation and representation of surrounding communities in the *environmental review* of the currently proposed projects as well as those which may be developed in the master plan." (Emphasis added) The Secretary further provided that the CWG will be "in existence during the time required for this special review," that is, through completion of the Draft and Final Environmental Impact Reports.

Before work on the MMR Master Plan DEIR can proceed, the proponent must submit a "proposed Special Review Scope and Schedule for public notice and review." The CWG offered recommendations on the contents of that scope in 1997. The next task of the CWG will be to review the proposed scope, followed, in due course by review and comment on the DEIR.

On August 17, 1998, the CWG voted unanimously to recommend that the Barnstable County Jail and House of Correction and the development of public water supply wells on the base be allowed to proceed with review through the Massachusetts Environmental Policy Act on an independent track from the rest of the Master Plan.

Widespread groundwater contamination and rapid population growth have contributed to an impending water supply crisis on the Upper Cape. Projections of the shortfall range as high as 3 to 13 million gallons per day by the year 2020. The Joint Program Office, Upper Cape water suppliers and Long Range Water Supply Team are on the cusp of having the resources to begin a water supply development program. In addition to the exploration and facility planning aspects of this work, water supply development will require a rigorous environmental review process. This environmental review is complicated by the need to avoid existing and potential sources of groundwater contamination as well as the legal and institutional issues governing land use on the MMR. In addition, environmental review of the site specific issues that have confronted recent Upper Cape community water supply development efforts such as alternatives analysis and surface water impacts from water withdrawal will also be required. Groundwater protection strategies must be credible and consistent with Cape-wide standards as reflected in the Regional Policy Plan. Long range management will require a community consensus much like the Master Planning effort.

Water Supply Protection, Development and Management

The "Open Space Plan" of Section 8 of the full Final Report describes Congressman William Delahunt's proposal to designate the northern portion of the MMR as a wildlife refuge. The Mashpee National Wildlife Refuge, a 3,900-acre site in the nearby Waquoit Bay watershed, serves as a model for such cooperative arrangements. The Mashpee Refuge includes federal lands and land owned by the towns of Mashpee and Falmouth, the Commonwealth of Massachusetts, and private conservation groups. The agencies retain ownership of the land and have ensured its protection through an agreement that provides for cooperative management practices. The Fish and Wildlife Service has offered its assistance in achieving a similar arrangement for the MMR property, incorporating its open lands in the Mashpee National Wildlife Partnership.

National Wildlife Refuge Proposal

MMR Oversight

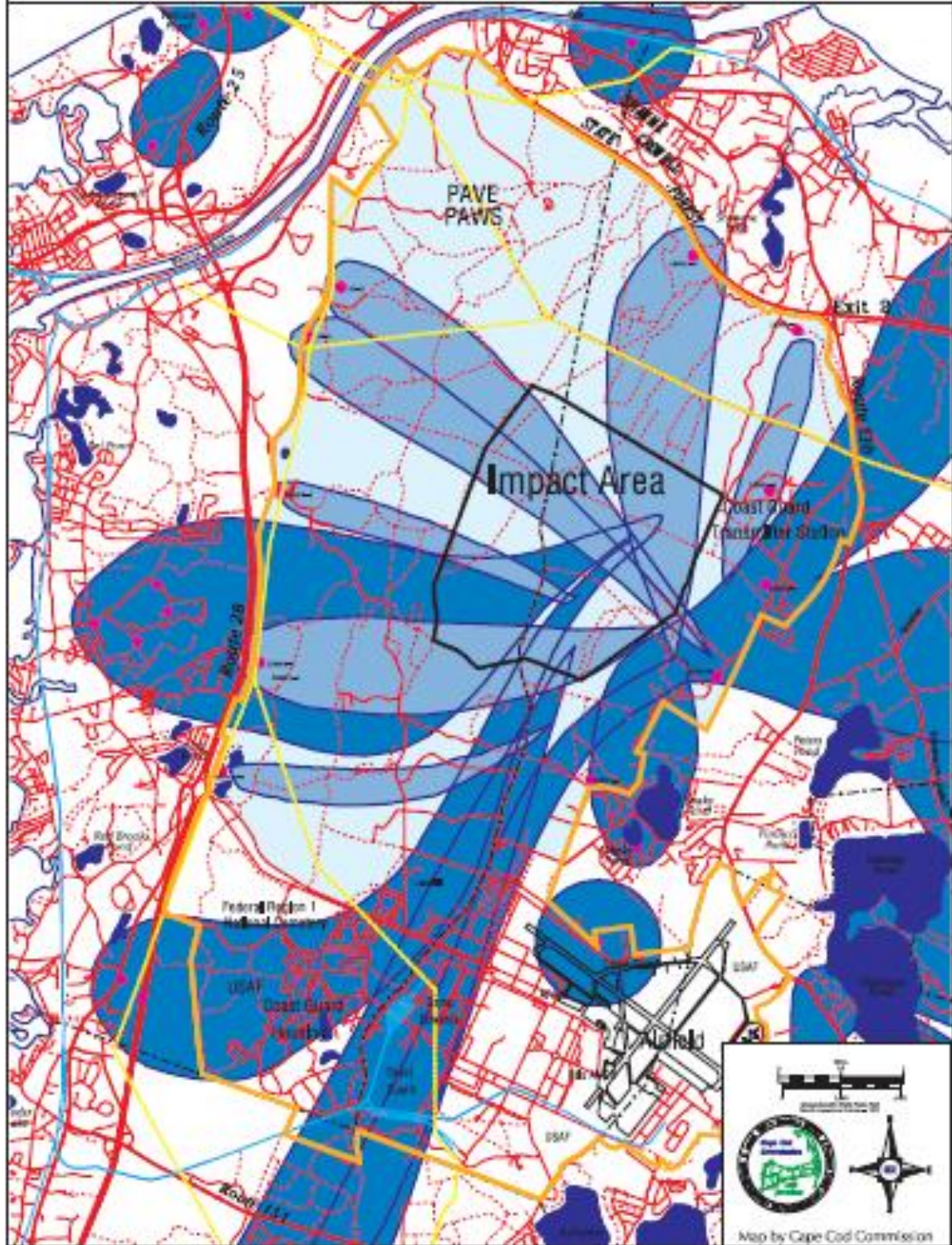
The positive experience of the Community Working Group in dealing with the difficult issues of both military and civilian users of the MMR in a context of environmental stewardship suggests that it would be fruitful to explore a similar, community-based approach to long-term oversight of the MMR. The “partnership” model of the Mashpee National Wildlife Refuge also offers a promising approach to shared responsibility for decision-making. We recommend that legislation be developed to create a new management model for the MMR that builds on these positive experiences. Such legislation could also deal with a problem repeatedly brought to the CWG’s attention: the need for cost sharing by both civilian and military users of the infrastructure of the MMR.

Master Plan Report Approval and Review of Leases

On August 17, 1998 the Community Working Group voted to endorse this Master Plan Report. Regarding future legal arrangements for uses of the MMR, the Community Working Group also approved the following resolution:

The Community Working Group recommends to the Governor of the Commonwealth of Massachusetts that all existing leases and licenses at the Massachusetts Military Reservation be reviewed and amended where necessary to conform to the Master Plan approved on August 17, 1998, with special attention to the Group’s decision on July 24, 1998, that there shall be “permanent protection and coordinated management plans for water supply, wildlife and open space in the northern 15,000 acres of the Massachusetts Military Reservation, as shown on the updated use zones map, and that actions be taken to successfully integrate these management plans with necessary and compatible military training and operational activities in conjunction with the Guiding Principles of the Community Working Group as adopted February 28, 1998.”

Water Supply Protection Zones





NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL

Members:

Elizabeth Peoniera, Chair
Teri Barton
Peter Caplan, Sr.
Jolene Catron
Stephanie Hall
Sevanala "Sav" Horn
Langdon Marsh
Margaret May
Venice Miller-Trevis
Paul Mohai
Van T. Nguyen
Edith Pastore
John Ridgway
Nia Robinson
Patricia Salkin
Nicholas Tang
Kimberly Wasserman

March 14, 2012

Lisa P. Jackson
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, DC 20460

Dear Administrator Jackson:

During the October 2011 meeting of the National Environmental Justice Advisory Council (NEJAC) in Albuquerque, New Mexico, several advocates came from across the country to speak with us during the public comment session. They asked us to reach out to you about a critical matter. They presented us with a letter signed by many from across the country about the urgent need for EPA to act to prevent chemical disasters.

Their specific appeal to the NEJAC was that we support a request to you and to Assistant Administrator McCarthy that EPA would utilize its authority under the "General Duty Clause" of the 1990 Clean Air Act section 112(r) (also known as the Bhopal clause) to require covered chemical facilities to prevent, where feasible, catastrophic chemical releases. After hearing their sound arguments and reviewing the data they presented to us, the NEJAC concurred with their request and agreed to send this letter to you

Implementing the Clean Air Act's prevention authority will not only eliminate accidental hazards but also will address fatal flaws in the current chemical security law administered by the U.S. Department of Homeland Security (DHS). Presently, DHS is prohibited from requiring the use of safer chemical processes at facilities. These gaps are particularly threatening to low-income and tribal communities and communities of color because they frequently reside near waste water treatment plants, refineries, and port facilities which are exempted under a 2006 Congressional statute that allows thousands of potentially high-risk facilities such as these from being required to use safer chemicals.

We have already witnessed in countless environmental justice communities what can, and has happened as chemical releases, explosions, fires, train derailments, and refinery releases have wreaked havoc upon local communities, releasing life-threatening and dangerous chemicals upon the nearby populations. We have seen what has happened in Institute, West Virginia; Graniteville, South Carolina; Rubber town, Kentucky; Houston, Texas; Albuquerque, New Mexico; and Baton Rouge, Louisiana, to name but a few examples.

A Federal Advisory Committee to the U.S. Environmental Protection Agency

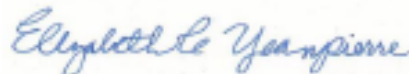
We know that in 2002, EPA made a proposal to implement the General Duty Clause for the first time to make chemical plants safer. According to the Agency's proposal, chemical plants would be made "*inherently safer by reducing quantities of hazardous chemicals handled or stored, substituting less hazardous chemical for extremely hazardous ones, or otherwise modifying the design of processes to reduce or eliminate chemical hazards.*" Unfortunately, the Agency's efforts were scuttled and environmental justice communities, and indeed all communities, remain vulnerable to the dire threat of hazardous chemical releases, explosions, and spills.

In 2003, the Government Accountability Office (GAO) concluded that EPA could "*interpret the Clean Air Act's general duty clause to address chemical facility security... According to EPA, it would not have to make any regulatory changes as it currently implements the general duty clause through guidance...*" to address the specific threat of disastrous risks to vulnerable communities.

Recommendation: Therefore, we respectfully recommend that EPA use its authority under the 1990 Clean Air Act, Section 112 (r), to reduce or eliminate these catastrophic risks, where feasible, by issuing new rules and guidance to fully implement the General Duty Clause. This action would reduce the danger and imminent threat that chemical plants, chemical manufacturing, and the transport and storage of hazardous chemicals pose to environmental justice and all communities.

Once again, thank you for this opportunity to provide recommendations for enhancing environmental justice in EPA's programs.

Sincerely,



Elizabeth C. Yeampierre
Chair

cc: NEJAC Members
Robert Perciasepe, Deputy Administrator
Gina McCarthy, Assistant Administrator for Air and Radiation (OAR)
Mathy Stanislaus, Assistant Administrator for Solid Waste and Emergency Response
Cynthia Giles, EPA Assistant Administrator for Enforcement and Compliance Assurance
Lisa Garcia, EPA Associate Assistant Administrator for Environmental Justice
Janet McCabe, Deputy Assistant Administrator, OAR
Victoria Robinson, NEJAC DFO, OEJ

Fenceline Watch- NEJAC comments

Fencelinewatch@gmail.com

June 28, 2021

NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL

August 17, 2021

RE: NEJAC 2021 Meeting Public Comments

Fenceline Watch is a Houston based environmental justice organization, dedicated to the eradication of toxic multigenerational harm on communities living along the fenceline of industry. We would like to thank NEJAC for the opportunity to provide comments on potential recommendations for NEJAC to consider.

I would like to start by commenting that in the month of June USEPA has scheduled a number of listening sessions and commenting periods that overlap with each other. Today alone was the listening session on the RMP (risk management plan) and the listening session for the methane rule pulled our attention. We would like for NEJAC to send USEPA a recommendation on how to best coordinate the timing for these sessions as they are all invaluable to our advocacy on petrochemical, oil and gas rules. For environmental justice efforts with limited capacity it strains our already limited resources.

In the first section of this comment we will highlight the three major recommendations on Toxic Substance Control Act (TSCA), and Risk Management Plan (RMP).

A. TOXIC SUBSTANCE CONTROL ACT - (TSCA)

I. Short Schedule Chemical Review

More than 60,000 chemicals were allowed on the market without testing. With roughly 2,000 chemicals introduced every year TSCA cannot afford to place the public health burden on the American public. By June 2016 under the Obama administration the Senate and House approved the Frank R. Lautenberg Chemical Safety for the 21st Century Act. Senator Tom Udall, D-N.M. championed this act which resulted in EPA review of a minimum of 20 chemicals at a time. The bill didn't provide EPA enough money to get through the backlog of old and dangerous chemicals.¹ We commend the current EPA's approach to developing methods that reflect the National Academies' approaches.

Where regulations are based on lists of hazardous chemicals, agencies should regularly review the lists and add new chemicals as appropriate through a rule-making process on a short schedule, such as every two years. This would help agencies fill gaps and stay current.

¹

<https://www.wjbs.com/news/our-science/it-could-take-centuries-for-epa-to-test-all-the-unregulated-chemicals-under-a-n-ew-landmark-bill>

www.fencelinewatch.org

Faneline Watch- NEJAC comments

Fanelinewatch@gmail.com

June 28, 2021

- Strengthening commitments on chemicals with multi-generational effects such as endocrine disrupting chemicals (EDCs) by developing a legally binding hazard identification that applies across-legislation and including provisions that will ban EDCs from consumer products (unless their use is deemed "essential") in 2021-2022.³
- Enforcement tax should be included for chemical review on facilities that use chemicals that are not currently reviewed to further research on them.
- Living in a predominantly Mexican American community we also see the language barriers with chemicals that are listed. We request EPA translate plain language summaries of these chemicals.

III. Exemptions & Mixture Assessment Factors

NEJAC should recommend that USEPA obtain basic information on **polymers (plastics)**, such as their formulation and toxicity, their production/import volumes, and the names of the companies manufacturing and importing them before they are allowed into the US.

NEJAC should also recommend EPA assess how to best introduce mixture assessment factor(s) (MAF) in the TSCA/USEPA regulation in 2022. In practice, this could help to address the mix of chemicals we are exposed to daily. However, the language here remains too non-committal as a mere assessment would not necessarily translate into a concrete use of the MAF. **With this recommendation we also request NEJAC push for cumulative impact statement (CIS) and incorporate this as part of the CIS.**

B. RISK MANAGEMENT PLAN

Living in Houston near so many petrochemical plants it is obscured the amount of times we undergo excessive flaring and toxic dumping during natural disasters. During extreme climate conditions such as the Texas winter storm in February, almost 200 companies released excess emissions; the top five emitted nearly [337,000⁴](#) pounds of pollutants, including cancer-causing benzene, into environmental justice communities. These ever more frequent events make these polluting facilities no longer an asset but a liability for public health. Moreover, if infrastructure continues to grow, so do the cumulative impacts of communities that must contend with the chronic toxic exposure that affects the reproductive, neurological, and endocrine systems, to name a few but the extreme acute impacts of the climate crisis.

I. EPA & Climate Change Studies

NEJAC should direct EPA to enter into an agreement with the National Academy of Sciences, the National Institutes of Health, and the National Oceanic and Atmospheric Administration to

³ <https://www.clel.org/reports/chemicals-strategy-for-sustainability-analysis/>

⁴ <https://www.reuters.com/business/environment/texas-freeze-led-release-tons-air-pollutants-refineries-shut-2021-02-21/>

Fenceline Watch- NEJAC comments

Fencelinewatch@gmail.com

June 28, 2021

conduct a study and report on the environmental, public health, and environmental justice impacts of the plastic industry and its planned expansion, including the production, entire supply chain, end uses, disposal fate, and lifecycle impacts of plastic products. The study and report must also assess the best available technologies and practices that reduce or eliminate the environmental justice and pollution impacts of plastics facilities and associated infrastructure. These will inform EPA's revision of environmental regulations to mitigate these impacts.

II. Community Right to Know

Categorizing chemicals a better approach is to use chemical characteristics and basic thresholds to be used as a trigger under the emergency planning community right to know act. We also request that NEJAC impress on EPA that translation into dominant language should be a priority for RMP plans. Especially those collocated in areas serving bilingual student populations.

III. Fenceline Monitoring

With respect to RMP (Risk management plan facilities) requiring Federal Reference Method (FRM) for fenceline monitoring is essential to not only an early detection for worker safety but also to the toxic trespass of hazardous fumes and emissions that cross the fenceline. NEJAC must recommend EPA require guidance on fenceline monitoring specifications that monitors face vulnerable receptors (homes, community centers, parks, schools, etc.). All fenceline monitors should be housed on a site easily displayed on their websites to ease community access.

Monitors should also be regularly maintained and working. They should remain operational during crises and natural disasters because it is especially important to understand the emissions and relay them to community members. During hurricane Harvey 8,000,000 (eight million) pounds of emissions were released during and after the storm in 4 counties, including the largest county in Texas and fourth largest in the nation Harris County. All counties are also part of a nonattainment area that has never met federal requirements since the establishment of the clean air act. Currently, Texas as a state has failed one ozone standard and is on the path to fail a second one in the weeks ahead. Houston-Galveston-Brazoria (HGB) has failed every standard. According to the TCEQ own information the Houston-Galveston-Brazoria attainment deadline for the 0.075ppm 8-hour (2008 Standard) is up July 20, 2021 followed by the 0.070 ppm 8-hour (2015 Standard) August 3, 2021. Under these conditions' communities like ours in the heart of the petrochemical complex are suffering as we face and continue to endure emissions from the winter storm Uri, nightly flaring, consistent upsets. EPA has also issued a finding of failure to meet Sulfur Dioxide national standards. The mortality rates of lung and bronchus cancer⁴ in Houston show that minority populations, especially black and Latino communities, are disproportionately impacted by the release of particulate matter from chemical manufacturing

⁴ Texas cancer registry. (2021). Cancer rates info. Texas department of state health services. <http://www.cancer-rates.info/tb/index>.

Fenceline Watch- NEJAC comments

Fencelinewatch@gmail.com

June 28, 2021

and industry when compared to white count parts. The longer this drags out the longer communities living next to refining, processing and fracking operations will have to be harmed by issues they should be protected from under national guidance.

As environmental justice communities we want to see better enforcement of the National Ambient Air Quality Standard. We request that NEJAC recommend EPA to place the pressure on Texas Commission on Environmental Quality (TCEQ) to make a State Implementation Plan (SIP) revision or have EPA pull the Texas SIP RACT/ RACM.

III. Chemical Disaster & Fines and Toxic Alert System

Chemical disasters are more frequent in areas of concentrated production, storage and export. With local counties like Harris county shouldering the cost of chemical disasters from emergency response, toxic exposure, the closing of other forms of commerce taxpayers are forced to pay the cost in health and taxes. This does not allow an opportunity for the continued monitoring to assure the safety of our communities and the public spaces adjacent to these disastrous consequences. We want NEJAC to recommend that EPA establish a fee that requires annual testing for up to 10 years on any facility that has had a major incident affecting water, wetlands, agricultural areas, and publicly used spaces (i.e parks) with an annual report linking to initial incident. Enact a reassuring fee for facilities with a history of noncompliance toward first responders upon arrival to a facility gate even if responders do not attend to fire (pays into benefits/ pension), toxic alert system and a fee that goes into a community benefits fund on facilities that require emergency services.

- Our last recommendation is that the NEJAC pressure EPA established a toxic alert system similar to Amber Alert, Inclement weather, or alerts during the Super Bowl all used a Text Notification, reverse 911. Texas legislature representatives supported these efforts when they introduced Texas House Bill 1927. Texas congresspeople championed this effort (Eddie Rodriguez of Austin, Hubert Vo of Houston, Jessica Farrar of Harris County, Jim Murphy of Houston, Mary Ann Perez of Houston) understanding the danger and cost their constituents carry. ⁵

We appreciate the opportunity to make recommendations to NEJAC,

Yvette Arellano, Director | Founder, Fenceline Watch

Houston, Texas

⁵ <https://capitol.texas.gov/todocps/85R/bills/text/html/HB019271.htm>



NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL

Members:

Richard Moore,
Chair
Jill Wittowski Heaps,
Vice-Chair
Sylvia Orduño,
Vice-Chair
April Baptiste
Charles Chase
Ellen Drew
Jabari O. Edwards
Michael Ellerbrock
Lisa Finley-DeVile
Jan Fritz
Rita Harris
Erica L. Holloman
Cheryl Johnson
Virginia King
Rosalyn LaFler
Mildred McClain
Melissa McGee-Collier
Jeremy F. Orr
NaTaki Osborne Jalks
Millicent Piazza
Dennis Randolph
Cynthia Kim Len Rozentes
Jerome Shabazz
Karen Sprayberry
Michael Tichin
Hermila Trevino-Sauceda
Sandra Whitehead
Saboby Wilson
Kelly C. Wright
Dewey F. Youngerman, II

May 3, 2019

Andrew Wheeler
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Re: Recommendation to preserve the Chemical Disaster Safety Rule

Dear Administrator Wheeler:

The National Environmental Justice Advisory Council (NEJAC) is extremely concerned about the impacts of chemical disasters on environmental justice communities. We urge the Environmental Protection Agency to halt efforts to rescind, weaken, and further delay parts of the Chemical Disaster Rule (also known as the January 2017 Risk Management Program (“RMP”) Amendments).¹ Instead, NEJAC believes that the Chemical Disaster Rule should be fully implemented and enforced. The safety improvements this rule contains are essential to protect the lives and well-being of fenceline communities, workers, and first responders.²

For more than a decade, the NEJAC has received public comments from residents concerned about the impacts of chemical disasters on their communities. They have come to the NEJAC asking for intercession with the EPA to ensure that the Agency adopts and implements regulations that protect fenceline communities. Frontline groups like Texas Environmental Justice Advocacy Services (TEJAS) and the Environmental Justice Health Alliance for Chemical Policy Reform regularly provide public comment to the NEJAC asking for help for fenceline communities threatened by chemical disasters.

¹ EPA, Final Rule, Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, 82 Fed. Reg. 4594 (Jan. 13, 2017) (the “Chemical Disaster Rule”), <https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule>.

² *Id.*; EPA, Risk Management Program (RMP) Final Rule, Questions & Answers (Feb. 2017), https://www.epa.gov/sites/production/files/2017-02/documents/rmp_final_rule_qa_and_as_12-21-16_final_formatted_2-6-17.pdf (“EPA’s changes to the RMP rule will help protect local first responders, community members and employees from death or injury due to chemical facility accidents.”).

1. Prevent chemical disasters in frontline communities and recognize that prevention is a critical priority for environmental justice.

EPA issued the Chemical Disaster Rule in January 2017, in part because a 2013 fertilizer plant explosion in Texas revealed the danger our frontline communities face. Before the rule was issued, community advocates have brought their concerns to NEJAC over the years about the need to strengthen federal regulations in the Risk Management Program. For example, during the October 2011 meeting of the NEJAC in Albuquerque, New Mexico, advocates raised this issue and called for EPA to exercise its Clean Air Act authority to require facilities to prevent, catastrophic chemical disasters where feasible. In March 2012, NEJAC sent a letter to the EPA Administrator urging the agency to issue new rules to reduce or eliminate chemical disaster threats and impacts.³

In response, EPA sent a letter to NEJAC in August 2013, stating that “[w]e ... share your concern about chemical accidents and preventing their devastating effects on communities.”⁴ From 2014-2016 EPA held public meetings, accepted two rounds of public comment, and coordinated with the Occupational Safety and Health Administration, the Department of Homeland Security, and other agencies to evaluate what regulatory improvements EPA should make to protect communities from chemical disasters.⁵ EPA also evaluated data showing over 2,291 chemical explosions, fires, and toxic releases in the preceding decade.

This information gathering and rulemaking process led to EPA’s new Chemical Disaster Rule, the Agency’s first major improvement on chemical facility safety in two decades. EPA determined that the improvements in this rule would prevent and reduce deaths, injuries, toxic exposures, and other harm from these incidents.⁶

³ Letter from Elisabeth Yampierre, Chair, NEJAC, to EPA Administrator Lisa P. Jackson (Mar. 14, 2012), <https://www.epa.gov/sites/production/files/2015-02/documents/2012-presswriting-chemical-plant-disasters.pdf>.

⁴ Letter from EPA Assistant Administrator Mathy Stanislaus to Ms. Margaret J. Mary, Vice Chairwoman, NEJAC at 1 (Aug. 29, 2013), <https://www.epa.gov/sites/production/files/2015-02/documents/epa-resp-chem-plant-disasters.pdf>.

⁵ EPA, Final Amendments to the Risk Management Program (RMP) Rule, <https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule>; Chemical Disaster Rule Regulatory Impact Analysis at 125-27 (Dec. 16, 2016), <https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0734>.

⁶ 82 Fed. Reg. 4597-99 (describing reductions in fatalities, injuries, property damage, people sheltering in place, evacuations, lost productivity, environmental impacts, and more), <https://www.govinfo.gov/contest/plgs/FR-2017-01-13/pdf/2016-31426.pdf>; Chemical Disaster Rule Regulatory Impact Analysis at 80 (Dec. 16, 2016), <https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0734>.

EPA properly recognized that the new measures are especially important for communities of color and low-income people because they face disproportionate threats from industrial chemical releases.⁷

2. EPA should enforce the Chemical Disaster Rule and not finalize its proposed rollback.

In August 2018 in Boston, NEJAC heard from advocates from around the country about the dire need for EPA to implement these protections. Advocates calling for EPA to keep these protections include: First responders and fire fighters, workers and labor unions, fence-line communities, scientists, tribal governments, and nonprofit environmental and safety activists. NEJAC believes EPA should listen seriously to these voices and keep the Chemical Disaster Rule in force, instead of rolling back these safety measures as requested by industry.

Soon after NEJAC's August meeting, the federal court of appeals in Washington, D.C. struck down EPA's delay of the Chemical Disaster Rule as an illegal move that deprived communities and workers of "life-saving protections."⁸ The Chemical Disaster Rule is in effect. Facilities must comply now with important parts of the rule, and take action to prepare to achieve full compliance with all other key provisions.⁹

For these reasons, the NEJAC strongly urges EPA to keep moving forward and not turn back the clock on chemical facility safety. We call on EPA to enforce and not repeal the Chemical Disaster Rule. EPA found that this rule would protect the most vulnerable communities, workers, and first-responders from disastrous chemical releases, fires, and explosions. We ask you to fulfill EPA's responsibility to safeguard public health and ensure that chemical facilities take the common-sense steps required by the Chemical Disaster Rule to prevent more deaths, injuries, evacuations, and shelter-in-place orders, before additional, preventable disasters occur on your watch.

⁷ Chemical Disaster Rule Regulatory Impact Analysis at 122-27 (Dec. 16, 2016),

<https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0734>.

⁸ *Air Alliance Houston v. EPA*, 906 F.3d 1049, 1065 (Aug. 17, 2018) (mandate issued Sept. 21, 2018).

[https://www.ca9.uscourts.gov/internet/cp/opinions.nsf/ID631B5F007DFAA56882582FC00609B00/\\$File/17-1153-1746106.pdf](https://www.ca9.uscourts.gov/internet/cp/opinions.nsf/ID631B5F007DFAA56882582FC00609B00/$File/17-1153-1746106.pdf)

⁹ EPA, Risk Management Plan (RMP) Delay Rule Vacatur, <https://www.epa.gov/rmp/risk-management-plan-rmp-delay-rule-vacatur>; EPA, Final Rule, Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, 83 Fed. Reg. 62,268 (Dec. 3, 2018).

Thank you for your review and consideration of the NEJAC's concerns and recommendations. We await your timely response.

Sincerely,



Richard Moore, Chair

cc: NEJAC Members
Henry Darwin, Acting Deputy Administrator
Barry Breen, Acting Assistant Administrator for the Office of Land and
Emergency Management
Brittany Bolen, Associate Administrator for the Office of Policy
Matthew Tejada, Director for the Office of Environmental Justice
Karen L. Martin, Designated Federal Officer and NEJAC Program Manager

A Federal Advisory Committee to the U.S. Environmental Protection Agency

John F. Mueller, Jr.

5255 S. Irvington Pl., Tulsa, OK 74135
jfmjr66@gmail.com 918-237-5296 (mobile)

I am a retired, licensed civil engineer with more than 25 years in public works, mostly water supply and water and wastewater treatment. I am commenting today to strongly urge the participants and the powers-that-be to do two things: First, accept the fact that community water fluoridation (CWF) is a little known yet most egregious example of environmental injustice; I refer to the League of United Latin American Citizens (LULAC) published resolution, in July of 2011, titled "Civil Rights Violation Regarding Forced Medication." (A pdf copy is being attached to an email with supplemental materials.) Among the multiple Whereases in that resolution, I quote the following few for context:

"WHEREAS, fluoridation is mass medication of the public through the public water supply; and
WHEREAS, minority communities are more highly impacted by fluorides as they historically experience more diabetes and kidney disease; and
WHEREAS, minorities are disproportionately harmed by fluorides as documented by increased rates of dental fluorosis (disfiguration and discoloration of the teeth)."

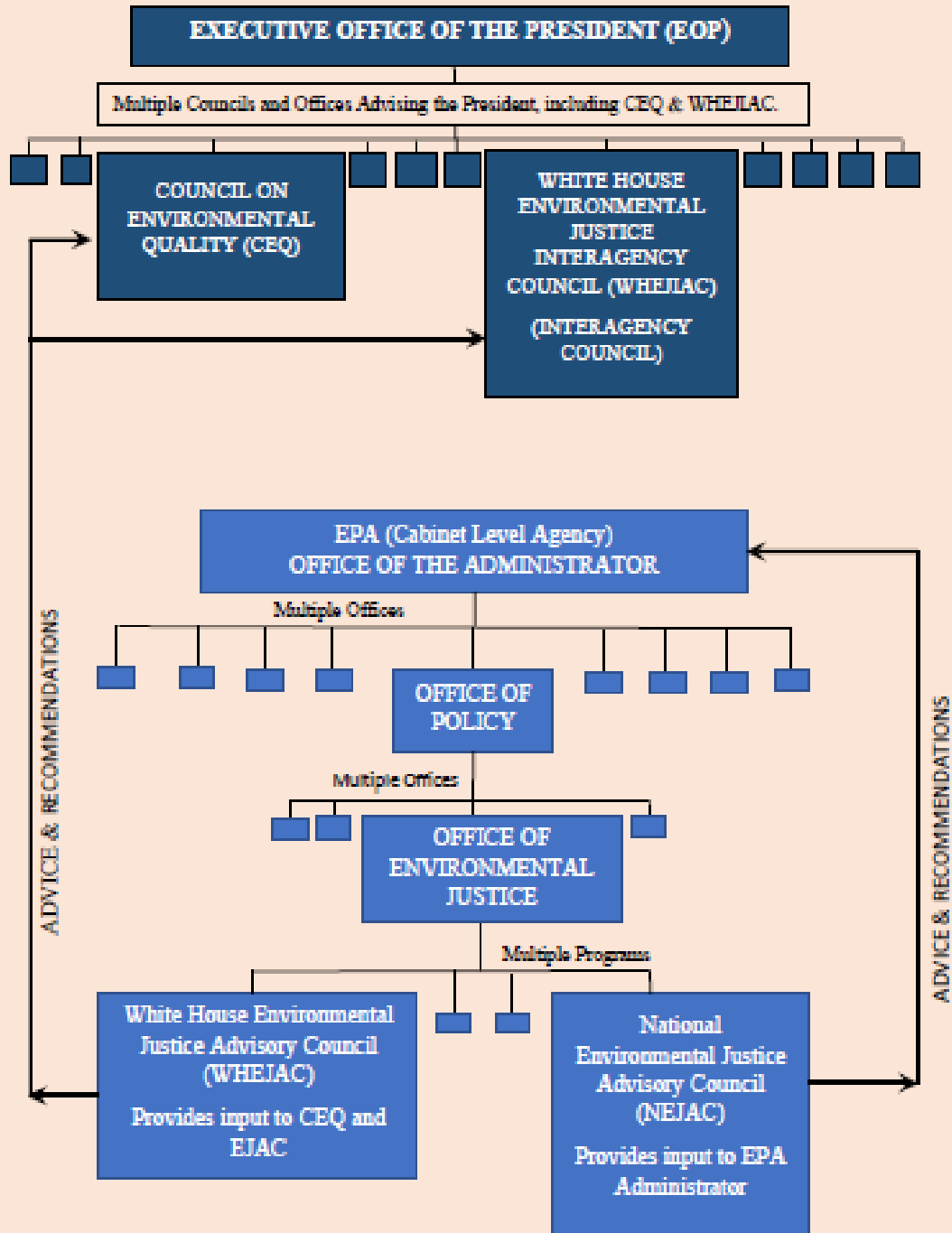
And again I quote:

"THEREFORE, BE IT RESOLVED, that LULAC commends efforts by organizations that oppose forced mass medication of the public drinking supplies using fluorides that are industrial grade, toxic waste by-products which contain contaminants (arsenic, lead, mercury) which further endanger life; and
BE IT FURTHER RESOLVED, that LULAC supports efforts by all citizens working to stop forced medication through the public water system because it violates civil rights."

Number 2- I ask the White House Environmental Justice Advisory Council (WHEJAC) to recommend an immediate moratorium on fluoridation until safe levels of exposure are determined by a proper Risk Assessment. I understand the recommendation would be made to the Council of Environmental Quality (CEQ), to the White House Environmental Justice Interagency Council (EJIAC), and to associated partnering agencies in the Department of Health and Human Services, now under the most welcome leadership of Secretary Xavier Becerra, sworn in just last Friday, I've read.

An immediate suspension of adding fluoridation chemicals to the public water supply would be a most tangible and meaningful effort by the Federal Government to address environmental injustice, while reducing water infrastructure corrosive damage and utility expenses. Granted, the optics of such a move and published in the Federal Register would attract responses ranging a full spectrum from apathy to widespread acclaim, from shock to bewilderment, and to utter disdain and harsh criticism. So be it. Thank you for this opportunity to comment.

Relationship Between WHEJAC and Top-Level Advisors to President Biden



From: jfmjr66@gmail.com
To: whejac@epa.gov
Subject: WHEJAC March 2021 Meeting Public Comments
Date: Tuesday, March 30, 2021 7:46:02 PM
Attachments: [Environmental Justice - Community Water Fluoridation - TSCA Lawsuit \(6.99 MB\).msg](#)
[Water Fluoridation TSCA Lawsuit Environmental Justice \(1.63 MB\).msg](#)

Dear WHEJAC Leadership,

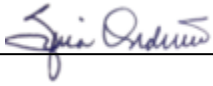
First, thank you very much for selecting me and my comments at today's meeting. I feel quite honored by the opportunity to provide meaningful exposure to the subject matter of my comments. Also, please know, if you do not know already, that in the past few weeks I have sent letters to EPA Administrator Regan and HHS Secretary Becerra. The content of each of those letters included the environmental justice issue and fluoridation. Please see the linked emails that I sent to those new leadership offices based on available email addresses. I also sent the signed originals to their respective recipients via USPS.

Question: Will a recording of today's meeting be available to the public with a link provided for access?

Sincerely,

John Mueller
5255 S. Irvington Place
Tulsa, OK 74135
918-237-5296

I, Sylvia Orduño, Chair of the National Environmental Justice Advisory Council, certify that this is the final meeting summary for the public meeting held on June 17, 2021, and it accurately reflects the discussions and decisions of the meeting.



Sylvia Orduño

September 16, 2021

Date