



An Update on Ongoing and Future EPA Actions to Empower Communities and Advance the Integration of Environmental Justice in Decision Making and Research



Foreword

The U.S. Environmental Protection Agency (EPA) is pleased to release this “*Update on Ongoing and Future EPA Actions to Empower Communities and Advance the Integration of Environmental Justice in Decision Making and Research*.” The release of this update further exemplifies the agency’s continued commitment to expand the conversation on environmentalism and work for environmental justice. This update illuminates ongoing efforts at the EPA to develop and improve reliable scientific data for identifying disproportionate environmental and health impacts among racial/ethnic minorities, low income populations, and indigenous people and tribes, while working to address and reduce these disparities.

This Update is the product of a conversation that began at the “*Strengthening Environmental Justice Research and Decision Making: A Symposium on the Science of Disproportionate Environmental Health Impacts*” held in the Spring of 2010. During the Symposium, many participants, including academicians and community advocates, provided recommendations to advance the scientific foundation of environmental justice issues, and also methods to ensure consideration of environmental justice in decision-making. The EPA continued to receive comments throughout the year, including a list of action items from a coalition of EJ and community advocates.

One overwhelmingly consistent recommendation and action item was for the EPA to regularly engage the public and provide updates and progress reports to the public on environmental justice and community health efforts. This Update, along with our quarterly Community Outreach Calls, embodies the EPA’s continued effort to respond to, and incorporate, recommendations to more meaningfully engage all stakeholders.

This Update provides a brief overview of ongoing and future actions across the EPA program offices and regions to: (1) advance the consideration of environmental justice in decision making; (2) build a science foundation for integrating EJ into policy-making; (3) collaborate with governmental and non-governmental partners and communities to meet environmental health needs; and (4) empower communities to take action to improve their environment and health.

Since the 2010 Symposium, the EPA also continues to advance environmental justice through our work under Plan EJ 2014, which is the Agency’s overarching strategy for advancing environmental justice. The agency is engaged in a number of activities under the Plan, including establishing a research agenda that incorporates environmental justice principles and expanding community outreach efforts through funding opportunities and technical assistance. Additionally, the agency is working closely with its federal partners through the Interagency Working Group on Environmental Justice to meet communities where they live. These and other environmental justice activities are highlighted in this report.

The EPA is committed to protecting health and environment for all, including communities that are currently experiencing disproportionate environmental health impacts. Although, this report indicates that the EPA has made significant progress, we recognize that much more work remains. Achieving environmental justice continues to be a priority and will require continued action by the EPA, other federal agencies, states and local governments, businesses, academic institutions, non-governmental and advocacy groups, and most importantly the residents of communities across our nation. We look forward to opportunities to continue the dialog on achieving environmental justice.

A handwritten signature in blue ink, appearing to read 'Lisa F Garcia', with a stylized flourish at the end.

Lisa F Garcia
Associate Assistant Administrator for Environmental Justice
Senior Advisor to Administrator on Environmental Justice

Acknowledgments

PROJECT COORDINATION

Onyemaechi Nweke – Office of Environmental Justice (OEJ)

Devon Payne-Sturges – Office of Research and Development (ORD)

REPORT PREPARATION

Pat Carey – Office of Solid Waste and Emergency Response (OSWER)

Lead, Community Capacity Building Chapter

Kelly Maguire – Office of Policy (OP)

Lead, Policy Chapter

Onyemaechi Nweke – Office of Environmental Justice (OEJ)

Report Coordinator

Lead, Healthy and Sustainable Communities Chapter

Devon Payne-Sturges – Office of Research and Development (ORD)

Lead, Science Chapter

STAFF CONTRIBUTORS TO REPORT

Office of Air and Radiation (OAR)

Candace Carraway

Mike Holloway

Connie Ruth

Erika Wilson

Holly Wilson

Will Wilson

Office of Chemical Safety and Pollution Prevention (OCSPP)

Robert Courtnage

LaShonia Richardson

Office of Enforcement and Compliance Assurance (OECA)/ Office of Environmental Justice (OEJ)

Rosanna Beltre (Association of Schools of Public Health Fellow)

Carlos Evans

Sheila Lewis

Onyemaechi Nweke

Office of Policy (OP)

Brigid Curry

Kelly Maguire

Megan McConville

Eileen McGovern

William Nickerson

Joel Scheraga

Tracey Westfield

*Office of Research and Development
(ORD)*

Devon Payne-Sturges

*Office of Solid Waste and Emergency
Response (OSWER)*

Pat Carey
Steven Foster
David Nicholas

Office of Water (OW)

Sandy Evalenko
Grace Ma
Surabhi Shah
Alice Walker

Region 1

Sarah Levinson

Region 2

Kim Brandon-Bazile
Deborah Brown
Schenine Mitchell
Vince Pitruzello
Terry Wesley

Region 3

Reggie Harris

Region 5

George Bollweg

Region 6

Shirley Augurson
James Leathers
Michael Morton

Region 8

Michael Wenstrom

Region 9

Debbie Lowe
Sharon Murray
Max Weintraub

MANAGEMENT STEERING COMMITTEE

Committee Chairs

Paul Anastas
Assistant Administrator, Office of Research
and Development

Lisa Garcia
Associate Assistant Administrator, Office of
Environmental Justice
Senior Policy Advisor to the Administrator
on Environmental Justice

Committee Members

Rob Brenner
Office of Air and Radiation

Al McGartland
Office of Policy

Heather Case
Office of Environmental Justice

Marsha Minter
Office of Solid Waste and Emergency
Response

Peter Grevatt
Office of Children's Health Protection

Marty Monell
Office of Chemical Safety and Pollution
Prevention

Fred Hauchman
Office of Research and Development

Chris Saint
Office of Research and Development

Charles Lee
Office of Environmental Justice

William Sanders III
Office of Research and Development

Macara Lousberg
Office of Water

Louise Wise
Office of Policy

Enrique Manzanilla
Region 9

Hal Zenick
Office of Research and Development

CONTRACTOR SUPPORT TEAM

Industrial Economics, Incorporated

Eric Ruder
Rachel Weil
Margaret Cella

Contents

Chapter 1	Introduction
Chapter 2	Policy
Chapter 3	Healthy and Sustainable Communities
Chapter 4	Community Capacity Building
Chapter 5	Science
Appendix A	Acronyms
Appendix B	Executive Order 12898

List of Actions

The following is a list of ongoing and proposed EPA actions to integrate environmental justice into its decision-making processes. As noted in the report, these actions are intended to present an overview of ongoing and proposed activities; they do not represent a comprehensive list of the EPA's activities with respect to environmental justice.

Policy

- Develop Plan EJ 2014 to serve as a roadmap for integrating environmental justice into EPA's activities and decision-making processes.
- Develop and launch Development and Retrospective Review Tracker (Reg DaRRt).
- Develop a nationally consistent environmental justice screening tool.
- Develop guidance to integrate environmental justice into the rulemaking process.

Healthy and Sustainable Communities

- Reinvigorate the Federal Interagency Working Group on Environmental Justice (IWG).
- Partner with the Department of Housing and Urban Development (HUD) and the Department of Transportation (DOT) to promote healthy and sustainable communities.
- Partner with other federal agencies on the National Partnership for Action to End Health Disparities.
- Support community-based projects that involve interagency and multi-sectoral collaboration to meet identified environmental health needs.
- Convene an interagency climate change adaptation task force.
- Mainstream climate adaptation into EPA's mission.

Community Capacity Building

- Initiate a Community Engagement Initiative (CEI) through EPA's Office of Solid Waste and Emergency Response (OSWER).
- Provide access to grant funding and technical assistance through Community Action for a Renewed Environment (CARE) to help communities form and sustain partnerships and reduce toxic exposures.
- Increase the capacity of tribes and tribal governments to protect environmental health through training, skills development, information exchange and technical assistance.
- Build local capacity among communities to improve the health of waterways and waterfronts through the Urban Waters Initiative.
- Facilitate intergenerational engagement in environmental decision making through programs that build knowledge of environmental justice issues among minority and low-income youth.
- Provide access to funding for community-based organizations through the Environmental Justice Small Grants Program.
- Strengthen technical capacity of community-based organizations and environmental justice leaders.
- Enhance the capacities of minority-serving institutions to engage in research and workforce training.

Science

- Develop trans-disciplinary research programs on environment and community health.
- Develop guidance, methods, tools, and data to integrate environmental justice into decision making.
- Conduct exposure and health research in near-roadway environments.
- Incorporate perspectives from community-based organizations and engage in collaborative partnerships.
- Partner with other federal agencies in the Federal Collaboration on Health Disparities Research (FCHDR)
- Enhance the EPA's capacity for science partnerships with impacted communities.

CHAPTER 1

Introduction



Integrating environmental justice into EPA's programs, activities, and policies is one of EPA Administrator Lisa P. Jackson's seven key themes, as presented in a January 2010 memorandum to her staff.¹ Under the priority area "Expanding the Conversation on Environmentalism and Working for Environmental Justice," Administrator Jackson notes that EPA must include environmental justice principles in all decisions and highlights the protection of vulnerable subpopulations as a top priority. Her focus on integrating environmental justice principles into decision making at the Agency is fostering bold, innovative and significant action.

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

In March 2010, EPA hosted a groundbreaking national science symposium to foster discussion about critical approaches for integrating environmental justice into all of the Agency's decisions.² The event, "Strengthening Environmental Justice Research and Decision Making: A Symposium on the Science of Disproportionate Environmental Health Impacts," included sessions on:

- The state of the science concerning notable factors prevalent among minority and low-income populations that are associated with disparities in environmental health outcomes;

- Legal and analytical frameworks (e.g., risk assessment, health impact assessment, and benefit-cost analysis) to incorporate environmental justice into regulatory decision making; and
- Types of data and research needed to incorporate environmental justice considerations into decision making.

Symposium participants included community experts, environmental justice advocates, representatives of non-governmental organizations, EPA analysts and scientists, academics, industry representatives and students. Many participants, including a special caucus of environmental justice advocates and community experts, provided suggestions in the broad areas of science, policy, capacity building and the promotion of healthy and sustainable communities. These suggestions are helping EPA integrate environmental justice into its decision-making processes.

The issues raised by symposium participants aligned with several ongoing activities established to implement Administrator Jackson's environmental justice priority, which stems from Executive Order No. 12898 (1994): "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations."³ They also informed planning, including the development of Plan EJ 2014. This plan celebrates the 20th anniversary of Executive Order 12898 by providing a roadmap for the Agency to strengthen relationships with communities and improve environmental conditions and public health in overburdened communities. The actions highlighted in this report also align with EPA's goals and strategies as outlined in the Agency's FY 2011-2015 Strategic Plan.⁴

¹ Environmental Protection Agency. Jackson, Lisa P. "Seven Priorities for EPA's Future." January 12, 2010.

² More information about the symposium can be found at http://www.epa.gov/ncer/events/news/2010/03_17_10_calendar.html.

³ Executive Order 12898 can be found in Appendix B.

⁴ U.S. EPA. 2010. Fiscal Year 2011-2015 EPA Strategic Plan: Achieving Our Vision. Washington, D.C. Accessed 2011. Accessible at: <http://www.epa.gov/planandbudget/strategicplan.html>.

As a follow-up to the event, EPA has prepared this report to provide an overview of ongoing and intended actions to advance implementation of Executive Order 12898, specifically those related to key issues raised at the symposium.

STRUCTURE OF THE REPORT

This report presents an overview of ongoing and proposed EPA actions that address issues emerging from the symposium. Therefore, it is not a comprehensive report on EPA's activities with respect to environmental justice. To prepare this report, several EPA programs and regions submitted the highlighted actions as examples of activities that address issues raised at the Symposium.

Examples of specific actions undertaken or planned by the Agency are outlined in four chapters:

- **POLICY.** This chapter introduces Plan EJ 2014, EPA's comprehensive four-year plan to integrate environmental justice into the Agency's activities. The chapter also includes EPA actions to develop a national screening tool, and ensure the integration of environmental justice into regulatory development.
- **HEALTHY AND SUSTAINABLE COMMUNITIES** This chapter describes interagency efforts to address environmental justice issues, as well as EPA actions to support community-based projects that will enhance health and improve environmental quality.
- **COMMUNITY CAPACITY BUILDING** Through capacity building, communities can develop the expertise necessary to address their complex environmental challenges. The EPA activities described in this chapter, support efforts among communities to improve their own environments by overcoming barriers such as limited

infrastructure, gaps in technical assistance, and jurisdictional issues with federal, state and local entities.

- **SCIENCE** This chapter gives an overview of ongoing and proposed actions in EPA's programs and regions to integrate environmental justice and community perspectives into the research conducted by EPA and its partners. The aim of these efforts is to develop methods and tools that advance the integration of environmental justice into decision making, increase technical capacity to address environmental justice within the Agency, and enhance partnerships with impacted communities on science issues.

As outlined in the chart on the following page, each chapter includes background information about the chapter topic, relevant suggestions from symposium participants, a discussion of the EPA strategy developed to address these suggestions, and a list of EPA actions that reflect this strategy. The report then describes each action and its benefits to stakeholder communities, as well as the ways in which each action contributes to EPA's environmental justice objectives. The Milestones section provides a list of key outcomes for each action. Highlight boxes draw attention to EPA projects that exemplify some of the discussed actions and approaches.

STRUCTURE OF THE REPORT



CHAPTER 2

Policy



The Context

EPA's core mission is to protect human health and the environment. To achieve these goals, the Agency has a variety of tools at its disposal to implement and enforce a host of environmental statutes. Such tools include regulations, permits, enforcement, grants, and public awareness. The degree to which EPA is successful in achieving its mission through the use of these policy tools can and does vary according to how well the policies are designed, including involvement from key stakeholders (i.e., community decision-makers, city planners, and public health officials).

A well-designed policy has a clear purpose. It is legally defensible, is feasible to implement and comply with, and achieves the desired goals. The development of policies that achieve these goals is no small task. And, from the perspective of environmental justice, the goals and needs of the communities may not always be met. Reasons for this include a lack of a formal structure for integrating environmental justice into the Agency's decision-making processes, lack of a voice in the decision-making process, inadequate implementation resources, and other barriers. EPA strives to develop effective policies. Enhancing consideration of environmental justice throughout the development of these policies will increase the effectiveness of EPA programs and help the Agency achieve its mission. This chapter describes examples of EPA's efforts to integrate EJ into EPA policy, highlighting Plan EJ 2014, the Regulatory Development and Retrospective Review Tracker (Reg DaRRT) a nationally consistent screening tool, and guidance documents.

A well-designed policy has a clear purpose. It is legally defensible, is feasible to implement, and achieves the desired goals.

Voices of Environmental Justice Advocates and Symposium Participants

Advocates and other key stakeholders at the environmental justice symposium developed the following recommendations for enhancing consideration of environmental justice in policy and increasing the effectiveness of EPA's policies and programs:

- Design regulatory development procedures that engage communities early in the policy-making process and provide mechanisms for effective participation.
- Strengthen regulations by adopting multi-media and cumulative impact approaches to environmental regulations.
- Explore approaches for enhancing compliance at state and local government levels.
- Streamline and organize the enforcement process, and reduce the number of entities responsible for enforcement.

An EPA Strategy

To address symposium participants' suggestions for integrating environmental justice in policy, EPA has undertaken the following strategies:

- Create a formal, agency-wide structure for integrating environmental justice into activities and decision-making processes.
- Develop methods that incorporate cumulative effects and multiple exposures in the regulatory development process.
- Create tools and resources that engage communities early and effectively in the decision-making process.

- Ensure that the concerns of environmental justice communities are considered throughout regulatory development.

Words to Action

EPA has undertaken the following actions toward implementing its strategy to enhance environmental justice considerations in policy:

- Develop Plan EJ 2014 to serve as a roadmap for integrating environmental justice into EPA's activities and decision-making processes.
- Develop and launch the Reg DaRRT (previously called the Rulemaking Gateway).
- Develop a nationally consistent environmental justice screening tool.
- Develop guidance to integrate environmental justice into the rulemaking process.

Each of these is described in detail in the following pages.

ACTION

Develop Plan EJ 2014 – A Roadmap for Integrating Environmental Justice into EPA's Activities and Decision-Making Processes

BACKGROUND

In July 2010, EPA released Plan EJ 2014, a strategy for executing Administrator Lisa P. Jackson's priority of "Expanding the Conversation on Environmentalism and Work for Environmental Justice."¹ The Plan describes the many ways in

which EPA will integrate environmental justice into its programs during the four-year fiscal timeframe leading up to the 20th anniversary of Executive Order 12898. It includes actions in the areas of regulatory work, scientific research, community engagement, and partnering with other federal agencies and external organizations.

Plan EJ 2014 has three sections: cross-agency focus areas, tools development, and program initiatives. The plan will help EPA achieve the following:

- Incorporate environmental justice into rulemaking.
- Consider environmental justice concerns in EPA's permitting process.
- Accelerate compliance and enforcement initiatives.
- Support community-based action programs.
- Foster administration-wide action on environmental justice.
- Develop methods to ensure that the Agency brings the best science to decision making regarding environmental justice issues.
- Identify opportunities to utilize the Agency's statutory authorities to advance environmental justice.
- Develop a mapping platform and a nationally consistent screening and targeting tool to integrate environmental justice principles into decision making.
- Achieve better coordination among multiple grant programs to enable communities to better access agency grant resources and foster greater efficiency in program implementation.
- Identify concrete ways to benefit communities with environmental justice concerns.

Activities outlined in Plan EJ 2014 align with and support EPA's commitments in the cross-cutting fundamental strategy of environmental justice and children's health between 2011 and 2015.

¹ More information about Plan EJ 2014 can be found at <http://www.epa.gov/environmentaljustice/plan-ej/index.html>.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

Plan EJ 2014 incorporates a wide variety of EPA tools, such as regulatory development, permitting, enforcement and compliance, and research, alongside community-based efforts. The plan takes a structured, multi-step approach to ensure the long-term sustainability of programs and projects aimed at integrating environmental justice into the Agency's activities.

Plan EJ 2014 will help EPA to:

- develop stronger relationships with communities through enhanced outreach and support;
- increase the Agency's efforts to improve environmental conditions and public health in minority, low-income and indigenous communities and tribes;
- diversify the Agency's activities; and
- utilize multi-media strategies to bring about change in communities.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

Plan EJ 2014 provides EPA programs and regions with a much-needed formal, focused and comprehensive framework that will increase the Agency's accountability in the area of environmental justice and move closer to the goal of attaining environmental justice as part of its mission.

MILESTONES

- Develop and release a final plan.
- Develop an agenda, a scope of work, outreach plans and milestones for each of the five cross-agency areas.

- Develop specific products identified in the scope of work for each cross-agency focus area.
- Issue periodic progress reports.
- Develop a progress report at the end of each fiscal year.

ACTION

*Develop and Launch the
Development and Retrospective
Review Tracker (Reg DaRRt)*

BACKGROUND

In February 2010, EPA launched the Rulemaking Gateway, a website that includes the timely announcement of new rulemakings—months or sometimes years before the proposed rule is published—and multiple methods of sorting by areas of interest. By August 2011, much of the Gateway website was subsumed under a broader site called Reg DaRRT, which is a more comprehensive website that focuses both on rulemakings under development and on the retrospective review of existing regulations. Reg DaRRT retained the EJ-related features of the Gateway such as providing an “EJ filter” so stakeholders may locate rulemakings that are of interest to them.²

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

The Reg DaRRT offers one-stop information for priority rulemakings at EPA. For example, Reg DaRRT provides RSS news feeds that alert you when EPA indicates that a rulemaking is likely to have an environmental justice impact, thus

² More information about the Reg DaRRT can be found at <http://www.epa.gov/regdarrt/>.

allowing stakeholders to more easily identify rulemakings that may be of interest to them.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

This online tool allows EPA to readily update the information available to the public and to do so early in the rulemaking process, offering stakeholders earlier opportunities for participation. Since launching the tool, EPA has been notifying the public of priority rulemakings an average of eleven months earlier than the traditional method—publishing a proposed rule in the Federal Register—and an average of five months earlier than notifications in the Unified Agenda.

MILESTONES

- Assess utility of the Reg DaRRT to users with interests in environmental justice.

■ ACTION ■

Develop a Nationally Consistent Environmental Justice Screening Tool

BACKGROUND

EPA programs and regions have developed a variety of internal environmental justice screening tools and other GIS applications to aid in identifying geographic areas of potential environmental justice concern. These applications, such as EJSEAT, EJView, various regional tools, and others, have played an important role as the Agency worked to integrate environmental justice into its programs, policies and activities. However, these tools may define and use different data, resulting in inconsistency in how areas of

potential environmental justice concern are identified across the country. EPA has begun an effort to develop a nationally consistent environmental justice screening tool in order to provide consistency in the data and methods used in environmental justice screening, and to better meet our responsibilities of protecting public health and the environment.

In addition, EPA is developing a suite of tools, data and services, known as EPA's GeoPlatform, that will help coordinate and consolidate mapping activities, applications, and data across the Agency. The GeoPlatform will support a wide variety of uses across the Agency, including appropriate components of the nationally consistent environmental justice screening tool, and other data and applications that may be of interest to stakeholders.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

The GeoPlatform will provide access to a wide range of EPA and partner data pertaining to environmental exposure and risk, ecological conditions, public health, demographics, and boundary/administrative information.

The development of the GeoPlatform and the concurrent creation of a nationally consistent environmental justice screening tool provide an opportunity for the two efforts to reinforce and enhance each other. EPA will explore opportunities for the projects to work together, including incorporating appropriate elements of the screening tool into the GeoPlatform.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

EPA's GeoPlatform consists of a suite of tools, data and services that will support a wide variety of uses across the Agency, including environmental justice and other important areas

such as enforcement and community-based work.

EPA's GeoPlatform project strives to coordinate activities, applications, and data across the Agency, ensuring the opportunity for re-use is maintained and that data and information are documented and available across the Agency, to our partners in the states and tribes, and to our other stakeholder communities. The vision is that ultimately, everyone will have the ability to conduct relevant geospatial analysis in their area of interest using common data, tools and techniques.

The purpose of nationally consistent environmental justice screening tool will be to provide a comprehensive tool for presenting available environmental and demographic data for locations across the United States. It will aid decision-makers in assessing policy and actions to be taken by EPA, in accordance with, and pursuant to, applicable law. It will also serve as a national baseline screening tool that can be supplemented with additional information and on-the-ground experience to help identify minority, low-income and indigenous communities and tribes that may warrant additional investigation by EPA to help reduce risk and improve public health. As a result of this effort, increased consistency of data and methods will be brought to environmental justice screening work across EPA.

MILESTONES

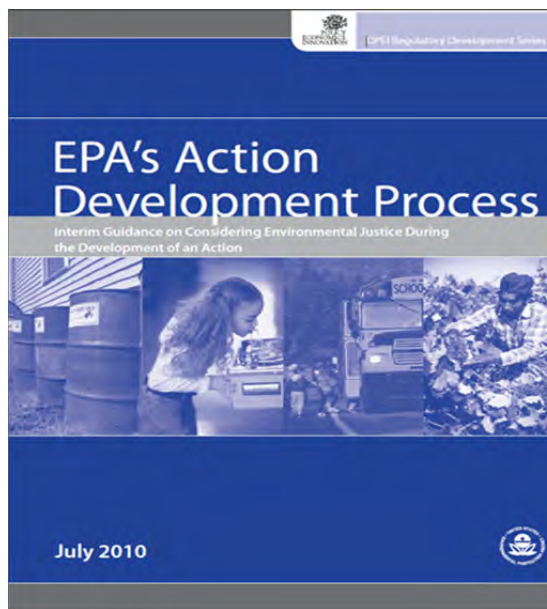
Because this work is in its initial stages, the Agency has not yet established a set of milestones and methods for measuring success.

ACTION

Develop Guidance to Integrate Environmental Justice into the Rulemaking Process

BACKGROUND

In July 2010 EPA released "Interim Guidance on Considering Environmental Justice during the Development of an Action."³ This Environmental Justice Action Development Process Guidance (EJ ADP Guide) describes the statutory and policy frameworks for considering environmental justice during rulemaking activities. It guides EPA analysts through the development process so they can engage senior managers, stakeholders, and others at optimal times and ask appropriate questions. EPA is now training staff on implementation of the EJ ADP Guide.



³ EPA's "Interim Guidance on Considering Environmental Justice During the Development of an Action" is available at: <http://www.epa.gov/compliance/ej/resources/policy/considering-ej-in-rulemaking-guide-07-2010.pdf>.

The Agency is developing technical guidance on how to conduct environmental justice analysis for rulemaking activities (EJ Technical Guidance) as a companion to the EJ ADP Guide. The EJ Technical Guidance will provide detailed information to EPA analysts on incorporating environmental justice into risk assessments, economic analyses and other scientific input and analytical documents as an integral part of the Agency's rulemaking process.

While the EJ Technical Guidance is under development, other mechanisms are being used to identify environmental justice concerns in regulatory actions. The Agency gathers this information at the inception of a regulatory action through the "tiering form." This form is used to assign the appropriate level (i.e., tier 1, 2, or 3) of agency review to the action. It also calls for participation of offices and regions in a workgroup to develop the action. Identification, communication, and coordination of environmental justice concerns are analyzed and resolved through that workgroup with final concurrence by EPA senior management.

The Agency's environmental justice and regulatory management functions are coordinating closely to implement the EJ ADP Guide. Regulatory development staff in the program offices will leverage agency resources, such as training from related agency workgroups and webinars, to ensure that the new guidance is implemented consistently across all programs.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

Consistent with existing law, rulemaking workgroups will identify and address, as appropriate, disproportionate environmental and health impacts affecting minority, low-income and indigenous communities and tribes. EPA will also proactively seek meaningful participation from environmental justice communities and bring

them into the conversations related to rulemakings that impact them.

Incorporation of Environmental Justice Considerations in Office of Water Rulemaking

EPA's Office of Water plans to screen and prioritize all significant actions (rulemakings, policy statements, guidance documents, risk assessments, models and analytical blueprints) routinely for environmental justice analyses as part of its fiscal year National Program Guidance. Once identified, the environmental justice analyses for these actions will be shared with other OW environmental justice staff as a way to enhance environmental justice analytical capabilities of the office. As a case study, Office of Water, Office of Science and Technology, Engineering and Analysis Division (OW/OST/EAD) will implement EPA's latest tools and techniques, including recent research results from ORD, to conduct an environmental justice analysis for the Steam Electric Power Generation Effluent Limitations Guidelines revisions. The ELG for steam electric is scheduled to be proposed by July 2012 and final by January 2014.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

Together, the EJ ADP Guide and EJ Technical Guidance will ensure that EPA is consistently and routinely considering environmental justice during the action development process, consistent with existing environmental and civil rights laws as well as Executive Order 12898, and using scientifically appropriate tools and methods. Throughout, the guidance documents emphasize the need to engage communities early

in EPA's regulatory development process to give them optimal impact on final outcomes.

This will ensure that EPA:

- consistently and routinely considers and analyzes environmental justice early and often in the development of rules;
- identifies rules that may have disproportionate impacts and addresses those impacts as feasible;
- addresses existing disparities through the rulemaking process, as possible;
- communicates the distributional effects of rules in a consistent and transparent manner.

M I L E S T O N E S

- Develop technical guidance to provide analysts with methods for considering environmental justice in regulatory analyses.
- Assess the consistency with which EPA workgroups conduct screening or analyses to identify environmental justice issues.
- Assess the level of environmental justice community involvement in rules where environmental justice issues have been identified.
- Monitor and evaluate the number and type of actions taken to reduce disparate impacts or make a positive difference in minority, low-income and indigenous communities and tribes

R E F E R E N C E S

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CHAPTER 3

Healthy and Sustainable Communities



The Context

A healthy community is characterized by more than merely the absence of disease. People in healthy communities have access to health care, public safety services, and safe food and water. They are protected from risks associated with chemical pollution, environmental degradation, and disasters in their homes, schools, and workplaces. Providing and maintaining these attributes are best attained through sustainable interactions between humans and the environment. Use of environmental resources at a level of sustainable yield, long-term security from environmental hazards, and long-lasting social, economic, and physical structures contribute to healthy and sustainable communities.

“A healthy community is one that embraces the belief that health is more than merely the absence of disease; a healthy community includes those elements that enable people to maintain a high quality of life and productivity” (US Department of Health and Human Services, 2001)

Within the federal government, oversight of programs and activities to protect health is distributed across an intricate network of several agencies that often have different mandates. What seems necessary to advance the concept of healthy and sustainable communities is better integration of efforts across media- and issue-specific programs, among multiple sectors of the economy, and within the elaborate structure of government.

By asserting its leadership role in environmental health protection, EPA is advancing a holistic, systems approach to bringing about healthy and sustainable communities. The Agency supports this approach by identifying opportunities to leverage resources and cross-fertilize activities with those of other agencies and sectors, and by engaging

partners whose decisions impact communities' health, wellbeing and sustainability.

“Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs.” (World Commission on Economic Development, 1987)

Voices of Environmental Justice Advocates and Symposium Participants

Creating healthy environments and sustainable living conditions is central to the wellbeing of minority, low-income and indigenous communities and tribes. These groups are exposed to multiple sources of pollution by way of air, water and soil contamination. Multiple factors are involved in both the causes of and the solutions to degraded health and environmental conditions.

Environmental justice advocates and other key stakeholders have established the following recommendations for promoting healthy and sustainable communities and increasing the effectiveness of EPA's policies and programs:

- Create a holistic, broad, cross-agency and multi-sector approach to public health protection that is focused on overall community health and wellbeing as an outcome.
- Enhance coordination among EPA's programs and interagency collaboration across the federal government on issues related to health protection.
- Develop and implement a multimedia approach to cumulative environmental exposures in environmental justice communities.

- Develop a comprehensive multi-agency regulatory structure to address issues of multimedia contamination and cumulative impacts in minority, low-income and indigenous communities and tribes.
- Develop a strategy for addressing fragmentation in public health protection.
- Reinvest in environmental justice communities, and integrate the concepts of health, equity and sustainability in community planning, zoning and land use decisions.

An EPA Strategy

The introduction of a crosscutting strategy on environmental justice and children's health in EPA's 2011–2015 strategic plan¹ underscores EPA's commitment to improving outcomes for stakeholder communities and populations. The Agency has taken critical steps to guide the implementation of the strategy on environmental justice and children's health by developing Plan EJ 2014, whose five focus areas for implementation include "Fostering Administration-wide Action on Environmental Justice" and "Supporting Community-Based Action Programs." These focus areas commit EPA to support holistic approaches to addressing environmental burdens that impact communities and to bridge relationships and develop joint initiatives among different agencies.

To address stakeholders' suggestions for promoting healthy and sustainable communities, EPA has implemented the following strategies:

- Create partnerships to respond to multimedia and crosscutting issues such as sustainability.
- Leverage existing resources and identify opportunities to maximize these resources through partnerships.
- Take on a leadership role in creating a healthy environment.

- Ensure that the concepts of health, equity and sustainability are integrated into programs, activities and policies across the federal government.
- Invest in communities to help them address environmental issues and/or needs.

Words to Action

EPA has undertaken the following actions to promote healthy and sustainable communities:

- Reinvigorate the Federal Interagency Working Group on Environmental Justice (IWG).
- Partner with the Department of Housing and Urban Development (HUD) and the Department of Transportation (DOT) to promote healthy and sustainable communities.
- Partner with other federal agencies on the National Partnership for Action to End Health Disparities.
- Support community-based projects that involve interagency and multi-sectoral collaboration to meet identified environmental health needs.
- Convene an interagency climate change adaptation task force.
- Mainstream climate adaptation into EPA's mission.

Each of these is described in detail in the following pages.

¹ U.S. EPA. 2010. Fiscal Year 2011–2015 EPA Strategic Plan: Achieving Our Vision. Washington, D.C. Accessed 2011. Accessible at: <http://www.epa.gov/nscep/index.html>

ACTION

Reinvigorate the Federal Interagency Working Group on Environmental Justice

BACKGROUND

On September 22, 2010, EPA Administrator Lisa P. Jackson convened the Federal Interagency Working Group on Environmental Justice (IWG) for the first time in over a decade.² The mandate of this cabinet-level group is to advance and oversee the integration of environmental justice into the fabric of all federal agencies' programs, activities and policies, as required in Executive Order 12898. The re-convening of the IWG represents a significant effort on the part of the EPA to take on a leadership role in partnering with other federal agencies whose policies and activities impact health, equity and sustainability. Such collaboration will result in identification of opportunities to maximize resources that will enhance health and living conditions in minority, low-income and indigenous communities and tribes.

The charges to the IWG from Executive Order 12898 include:

- Provide guidance to other federal agencies on identifying adverse health and environmental effects on minority and low-income communities.
- Develop model environmental justice projects that evidence cooperation among federal agencies.
- Coordinate with and provide guidance to other federal agencies developing environmental justice strategies, and serve as a clearinghouse for those strategies.

² More information on the IWG can be found at: <http://www.epa.gov/compliance/ej/interagency/index.html>

- Encourage cooperation among federal agencies that conduct research on human health and the environment.
- Assist in coordinating data collection on topics relevant to environmental justice and health disparities.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

Environmental justice advocates and communities recognize that multiple factors (e.g., housing, access to health care, pollution) contribute to health disparities and other environmental justice concerns. They recommend a holistic, interagency approach focused on the community as an entity. The IWG is a forum for ensuring the integration of health equity and environmental justice considerations into the policies, actions, and programs across the federal government. Through this working group, EPA plans to initiate and encourage collaboration on policies and programs that impact health and the environment and promote sustainability in its stakeholder communities.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

The IWG provides EPA's programs a forum through which to advance interagency strategies that meet its mandate of promoting healthier, more sustainable communities.

MILESTONES

- Develop strategies for IWG-member agencies to provide a roadmap for implementation of Executive Order 12898 and, more specifically, to guide integration of environmental justice into member-agency programs, policies and activities.
- Host regional listening sessions to solicit stakeholder input into the evolving process for the IWG.

- Host a White House forum to provide community leaders with information about the range and types of federal resources that are available to their communities.
- Establish at least one interagency collaborative between EPA and one or more federal agencies through the IWG. This collaborative would provide a model for how multiple resources can be targeted to address identified issues in specific case studies.

ACTION

Partner with HUD and DOT to Promote Healthy and Sustainable Communities

BACKGROUND

The interagency Partnership for Sustainable Communities brings together EPA, HUD and DOT to support the health and wellbeing of people and their communities by promoting equitable and affordable housing, providing more transportation choices, enhancing economic competitiveness, and investing in safe and healthy neighborhoods.³

The partnership is guided by six “livability principles”:

- Provide more transportation choices: Develop safe, reliable, and economical transportation options to decrease household transportation costs, reduce our nation’s dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health.
- Promote equitable, affordable housing: Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.
- Enhance economic competitiveness: Improve economic competitiveness through reliable and timely access to employment centers, educational opportunities, services and other basic needs by workers, as well as expanded business access to markets.
- Support existing communities: Target federal funding toward existing communities—through strategies like transit oriented, mixed-use development and land recycling—to increase community revitalization and the efficiency of public works investments and to safeguard rural landscapes.
- Coordinate and leverage federal policies and investment: Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices.
- Value communities and neighborhoods: Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods in rural, urban, and suburban areas.



³ More information on the HUD-DOT-EPA partnership for sustainable communities can be found at: <http://www.epa.gov/smartgrowth/partnership/>

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

The partnership's priorities respond directly to the challenges facing many minority, low-income and indigenous communities and tribes. America's decades-long migration of population, jobs and resources from cities and older suburbs to the fringes of metropolitan areas has had serious consequences for low-income and minority communities, isolating them in neighborhoods that lack the opportunities, services and social networks critical for full participation in society.

These communities often live with crumbling water and transportation infrastructures, inferior municipal services, brownfields and other toxic and vacant sites, and blight. They have struggled to connect with jobs and educational opportunities, to attract economic activity, and to engage in decision-making processes.

Many of these communities are eager to revitalize their neighborhoods and take leading roles in planning and development, but they lack the necessary resources and capacity. The partnership's actions will address these long-standing inequities by encouraging smart, fair development that responds to the needs of traditionally underserved communities, including rural and tribal areas. Specifically, the partnership will target resources through grants and other programs so communities can plan and implement their visions, and it will provide technical assistance in several pilot projects around the country.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

EPA recognizes that how and where we build has serious implications for the environment and public health.

Housing, transportation, and environmental policy are inextricably connected. Coordinating federal investments in infrastructure, facilities, and

services advances EPA's goal of protecting public health and the environment and furthers other community objectives. Investing in public transit, for example, can lower transportation costs, reduce air pollution, decrease traffic congestion, encourage exercise, and spur development of new homes and amenities close to transit centers.

Partnership for Sustainable Communities Brownfields Pilot— Boston's Fairmount Rail Corridor

The U.S. Department of Transportation Federal Transit Administration, in collaboration with the Massachusetts Bay Transportation Authority and the City of Boston, is supporting four new commuter rail stations and two station renovations along a 9-mile rail corridor in the low-income neighborhoods of Roxbury, Dorchester, Mattapan and Hyde Park.

Past investment from other federal partners has included: EPA funding to assess and clean up more than 30 brownfield sites within a half-mile of the new and renovated stations, and HUD funding supporting a significant portion of the more than 2,000 new housing units being built along the rail corridor.

Going forward: EPA, HUD and DOT are assisting a collaborative of four community development corporations (CDCs) with planning efforts and an area-wide brownfields revitalization strategy.

MILESTONES

- Integrate the livability principles into funding programs, policies, and legislative proposals for the three partner agencies.
- Convene a working group focused on the intersection of environmental justice and sustainability, and develop recommendations on how each agency can target existing resources to address environmental justice needs.

- Award HUD Sustainable Communities Regional Planning Grants that integrate housing, land use, economic and workforce development, transportation and infrastructure investments, ensuring that grantees engage populations not traditionally included in planning.
- Provide technical assistance to five brownfields pilot communities to help them clean up and reuse contaminated and vacant properties and support affordable housing around transit centers.
- Award brownfields area-wide pilot projects and facilitate cross-agency coordination that informs assessment, cleanup and reuse of brownfield properties and promotes area-wide revitalization
- Co-host “Achieving Equitable Development: Strategies to Empower Community Organizations,” held in conjunction with the New Partners for Smart Growth Conference, focused on building the capacity of community-based organizations to engage on growth and development issues (February 2011).
- Convene the Equitable Development Institute at Brownfields 2011 in Philadelphia (March 2011).

ACTION

Partner with Other Federal Agencies on the National Partnership for Action to End Health Disparities

BACKGROUND

The mission of the National Partnership for Action to End Health Disparities (NPA) is to increase the effectiveness of programs that target the elimination of health disparities through the coordination of partners, leaders, and stakeholders who share the same goals and vision and who are

committed to action⁴. The NPA aims to establish a nationwide, comprehensive, community-driven, sustained approach to combating health disparities and to move the nation toward achieving health equity.

The NPA serves as a catalyst for collective leadership action focused on five main goals:

- Awareness: Increase awareness of the significance of health disparities, their impact on the nation, and the actions necessary to improve health outcomes for racial, ethnic, and underserved populations.
- Leadership: Strengthen and broaden leadership for addressing health disparities at all levels.
- Health system and life experience: Improve health and health care outcomes for racial and ethnic minorities and underserved populations.
- Cultural and linguistic competency: Improve cultural and linguistic competency and diversity of the health-related workforce.
- Data, research and evaluation: Improve data availability, coordination, utilization, and diffusion of research and evaluation outcomes.

The objectives of the NPA are translated into twenty cross-cutting national strategies designed to ensure progressive action to address the multiple determinants of health disparities, including the environment. The partnership’s organizational structure currently includes a Federal Interagency Health Equity Team (FIHET) and 10 Regional Health Equity Councils comprised of community and other representatives.⁵ The FIHET currently has membership from 12 departments and agencies, including EPA.

⁴ More information on the NPA can be found at: <http://minorityhealth.hhs.gov/npa/>

⁵ A map showing the 10 regions can be found at: <http://www.hhs.gov/about/regionmap.html>.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

Numerous risk factors converge on environmental justice communities and negatively affect their health and wellbeing. Exposure to multiple environmental health hazards is worsened by a lack of access to affordable preventive and curative health care and by the absence of accurate health information, quality education, adequate housing, physical safety and financial security.

The NPA resulted in the development of the first National Stakeholder Strategy for Achieving Health Equity (NSS). This strategy provides a focused, holistic and multifaceted approach to the issue of health disparities. The NPA provides a rare opportunity for cohesion and collaboration across programs, policies, and activities that impact community health. Through partnerships under the NPA, policies and resources within individual agencies and programs can be leveraged in ways that are harmonized and complementary and that ultimately maximize the health equity benefits of individual programs for stakeholder communities.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

EPA recognizes that solutions must be multi-faceted to effectively address environmental justice concerns and health inequities. Solutions should target social, economic, environmental, and cultural determinants of health. Because EPA's reach is limited, collaboration with other federal agencies is necessary to design and deploy such solutions. This collaboration is a focus area in EPA's Plan EJ 2014.

In the effort to eliminate health disparities and bring about environmental justice, the NPA creates an opportunity for EPA to align its programs and activities with those of other federal agencies, make environmental health a focus of new policies and actions, and work collaboratively with federal partners to integrate equity and sustainability into federal activities, policies and programs.

MILESTONES

- Develop and launch the National Stakeholder Strategy for Achieving Health Equity.⁶
- Develop implementation, evaluation, and communication plans for the national strategy.
- Enhance federal cross-agency collaboration and coordination on one or more actions identified in the national strategy.
- Launch 10 Regional Health Equity Councils to strengthen coordination and action across states and communities.

ACTION

*Support Community-based Projects
that Involve Interagency and Multi-
sectoral Collaboration to Meet
Identified Environmental Health
Needs*

BACKGROUND

EPA offers technical assistance, cooperative agreements, grants, and other mechanisms to help environmental justice communities identify their environmental issues, then design and implement community-driven strategies to address them. This section highlights community-based projects that are primarily premised on collaboration across governmental partners and/or sectors to address identified environmental health needs in communities.

⁶ More information on the National Stakeholder Strategy for Achieving Health Equity can be found at: <http://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=286>

Sustainable Skylines Initiative

The Sustainable Skylines Initiative (SSI) is a non-regulatory pilot program “owned” by individual cities. The program uses air quality regulatory needs, climate action goals, and other local environmental priorities as a catalyst for integrated sustainability actions.

The SSI brings together the resources of EPA, other government agencies, nonprofits and private organizations to support communities. While the primary focus of SSI is air quality, communities are encouraged to select activities that will result in synergistic reductions from all media, such as water, hazardous/solid waste, and energy. The SSI helps a community:

- Evaluate issues and goals;
- Develop projects to address multiple issues and create complementary benefits (e.g., using energy-efficiency measures for ozone nonattainment, establishing climate action targets, and promoting stewardship of government operating funds);
- Target available federal, state, regional and local resources for projects that provide tangible results;
- Create an economy of scale to amplify media attention, level of support, and outreach for specific projects while showcasing a larger sustainability effort; and
- Bridge community and regional sustainability efforts to re-energize existing programs and develop key emerging priorities.

SSI projects result in air quality improvement, water runoff reductions, energy efficiency, and greenhouse gas mitigation. This supports progress toward EPA Administrator Jackson’s priority of improving air quality, as well as Goal 1 of EPA’s Strategic Plan (Clean Air and Global Climate Change).

Based on pilots in Dallas and Kansas City, SSI is expected to generate over \$100,000 in annual benefits over a three-year period starting in 2008 and yield estimated reductions of carbon dioxide emissions (5,800 tons), nitrogen oxide emissions (2 tons) and sulfur dioxide emissions (2 tons).

BENEFITS TO EPA’S STAKEHOLDER COMMUNITIES

Community-based action initiatives provide EPA’s stakeholders with access to resources that help develop awareness and knowledge about environmental health issues; assess, understand and take action on issues that diminish the quality of health and the environment in communities; and develop leadership skills among community members so that they are stronger advocates for health and sustainability.

Green Jobs Training Initiative

EPA invests in training the next generation of workers to contribute to a green economy. The Agency’s Region 1 office has partnered with the regional Department of Labor (DOL) Job Corps to develop Growing Responsible Environmental Employees Now (G.R.E.E.N.). This is an eight-hour sustainability curriculum, offered at DOL’s training centers, that introduces green principles into any job training or education program.

This unique, federally funded program provides housing, medical care, life skills training and schooling in dozens of trades (e.g., auto body, health care, landscaping and construction) to thousands of at-risk youth.

The G.R.E.E.N. curriculum is available at www.epa.gov/region1/education.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

Improved health and wellbeing in affected communities requires input from multiple stakeholders, particularly from the community members, themselves. Through these initiatives, EPA offers direct assistance to its community partners by providing them with the tools and

training necessary to assess their environments and to take on leadership roles in addressing the issues. While these initiatives do not replace the work of EPA and other regulatory agencies, they empower community members to bring about healthy environments, and this contributes significantly to sustainability.

MILESTONES

- Provide support through funding under EPA's community-based action programs.
- Initiate and complete projects that fund, empower and enable communities to create healthy, safe, and sustainable environments.

Safe Drinking Water Act Compliance in Puerto Rico

The Puerto Rico Aqueduct and Sewer Authority (PRASA) operates an island-wide municipal drinking water infrastructure. Approximately 120,000 people (3% of Puerto Rico's population) rely on 252 private, non-PRASA systems that serve small communities or individual homes.

Non-PRASA systems rarely comply with Safe Drinking Water Act regulations. They carry out minimal operation and maintenance practices and have little, if any, technical or financial capacity.

During fiscal years 2009 through 2011, EPA provided technical and financial assistance to conduct chemical sampling of 64 non-PRASA systems, install disinfection equipment at 7 non-PRASA sites, and connect several schools to the municipal drinking water infrastructure.

ACTION

Convene an Interagency Climate Change Adaptation Task Force

BACKGROUND

Vulnerability to climate change differs across communities and even across households. Social and economic factors (e.g., economic status, race, ethnicity, age, gender, and health) can significantly affect people's exposure and sensitivity to climate change as well as their ability to recover from its negative effects. Minorities, the poor, children, the elderly, the infirm, and tribal communities are the most vulnerable to climate change impacts.

In 2009, President Obama signed Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," calling on the Interagency Climate Change Adaptation Task Force to develop federal recommendations for adapting to climate change. In October 2010, the task force delivered "Progress Report of the Interagency Climate Change Adaptation Task Force: Recommended Actions in Support of a National Climate Change Adaptation Strategy," presenting policy goals and recommendations to reinforce existing efforts, harness a range of capabilities and resources across the federal government, and build strong partnerships with local, state, regional, tribal, and international stakeholders to advance a common adaptation agenda.

Merging the goals of Executive Orders 13514 and 12898, the task force identified environmental justice issues as an important consideration in the design and implementation of adaptation strategies. The report states that:

- Adaptation plans should prioritize helping people, places, and infrastructure that are most vulnerable to climate impacts.

- Plans should be designed and implemented with meaningful involvement from all parts of society.
- Issues of inequality and environmental justice associated with climate change impacts and adaptation should be addressed.

The task force report recommended establishment of a partnership committee consisting of local, state, tribal and federal government representatives to exchange information and views on adaptation needs, including concerns about environmental justice issues. The committee will identify how agencies can best coordinate and engage with stakeholders on an ongoing basis, as the federal government continues to enhance its support of adaptation efforts at various scales. The committee will increase engagement with non-federal partners, the private sector, and community-based organizations and networks. Agencies on the task force will also engage with non-federal partners as they work to develop agency-specific adaptation plans, provide accessible information and tools, foster local-to-global collaboration, and address stakeholder needs.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

The work of the task force has been guided by a strategic vision of a resilient, healthy, and prosperous nation in the face of a changing climate. Through the task force, EPA is able to harmonize its efforts in particular communities with those of other federal agencies and improve the delivery of science, services, decision-support tools, and assessments. Through this interagency forum, EPA can encourage the integration of environmental justice considerations in addressing climate change adaptation for vulnerable communities across the country.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

The federal government is pursuing the recommendations of the October 2010 task force report to advance a national approach to climate change adaptation. The recommendations provide EPA with an opportunity to advance interagency efforts that will promote healthier and more sustainable communities.

MILESTONES

- Initiate implementation of recommendations in the October 2010 task force report.

■ ACTION ■

*Mainstream Climate Adaptation
into EPA's Mission*

BACKGROUND

The increasing rate of climate change poses new challenges for communities and governmental institutions alike. With climate change, EPA encounters more obstacles towards fulfilling its mission of protecting human health and the environment. Administrator Jackson advocated for institutional anticipation for changes in climate and the importance of adapting EPA's activities to climate change in the Agency's FY 2011-2015 Strategic Plan. Specifically she noted that the Agency must incorporate anticipated yet unprecedented changes in climate into its programs and rules to continue to fulfill statutory, regulatory, and programmatic requirements.

In response to this need, EPA established the cross-EPA Work Group on Climate Change Adaptation

Planning. The group is charged with developing and implementing a plan to address the challenges posed by climate change to its mission, operations, and programs.

Because certain populations are particularly vulnerable, EPA's Climate Change Adaptation Plan will focus on understanding the environmental justice implications of climate change and climate adaptation, identifying populations and communities most sensitive to climate change, and incorporating consideration of environmental justice issues into the design and evaluation of adaptation strategies.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

EPA's efforts to integrate climate adaptation into its programs, policies, rules, and operations will help promote resilient, healthy, and prosperous communities in the face of a changing climate. The Agency's focus on environmental justice issues will help the most vulnerable people and places reduce their exposure and sensitivity to climate change and improve their capacity to predict, prepare for, and avoid adverse impacts.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

EPA's Climate Change Adaptation Plan will help ensure that the Agency's programs, rules, and operations are effective in a changing climate. A focus on environmental justice will place a priority on helping the people, places and infrastructures that are most vulnerable to climate impacts. By increasing the adaptive capacity of these groups, EPA will further its mission to protect human health and the environment.

MILESTONES

- Integrate climate change trends and scenarios into rule-making processes.
- Integrate considerations of climate change impacts and adaptive measures into financial agreements (e.g., grants, loans, and contracts) and technical assistance programs.
- Integrate climate change trends and scenarios into major scientific models and/or decision-support tools used in implementing EPA environmental management programs.
- Include in annual budget submissions to Congress explicit commitments with targets and timetables to attain performance measures.

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CHAPTER 4

Community Capacity



The Context

Capacity building is a process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in the fast-changing world.¹ It encompasses the elements of human, scientific, technological, organizational, institutional, and resource capabilities.² Simply put, it is helping others help themselves.

While capacity building is often used in the context of international aid, its application is no less valuable at domestic levels. In a federal government context, capacity building is used to transform community and industry approaches to social and environmental problems. For example, building capacity among communities can determine whether or not those with limited resources can access safe drinking water or develop a safe waste disposal infrastructure.

“Capacity building refers to activities that improve an organization’s ability to achieve its mission or a person’s ability to define and realize his/her goals or to do his/her job more effectively.”
(The Alliance for Nonprofit Management)

While capacity building can be applied to a wide range of conditions, it is commonly used to address a lack of connection between a community’s needs and the supplies necessary to meet them. This may include a lack of funding, inadequate training materials, or a lack of the structure, organization and knowledge needed to bring about change.

Typically, the foundations of capacity building are education and training—helping others to bring about positive change. Successful capacity building creates sustainable solutions by providing communities with the knowledge, skills and infrastructure to rise above problems and limitations.

Voices of Environmental Justice Advocates and Symposium Participants

Capacity building plays an especially important role in minority, low-income, indigenous communities and tribes with environmental justice issues. These communities experience disproportionate exposures to environmental hazards, such as unsafe conditions from brownfields and/or Superfund properties and multiple sources of environmental hazards.

Capacity challenges within minority, low-income and indigenous communities and tribes include limited or dilapidated infrastructure; gaps in technical expertise; difficulties in hiring, training, and retaining qualified environmental professionals; and jurisdictional issues with federal, state and local entities. Obstacles like these can make managing and resolving environmental issues overwhelmingly complex. Through capacity building, these communities acquire the knowledge and expertise to develop effective long term or even permanent solutions to these issues. Environmental justice advocates and other key stakeholders have established the following recommendations for building capacity in communities and increasing the effectiveness of EPA’s policies and programs:

- Provide resources to develop capacity within communities so they can effectively contribute to and participate in EPA decision-making processes.

¹ As cited in: Philbin, A. 1998. Capacity Building Work with Social Justice Organizations: Views from the Field.

² United Nations. 1992. Agenda 21: Earth Summit – The United Nations Programme of Action from Rio.

- Develop technical expertise to assess environmental issues within communities.
- Enhance the capacity of Minority Serving Institutions (MSIs), including tribal colleges, to engage in relevant research and workforce training and to provide training opportunities for minority students in relevant fields of study.
- Increase the capacity of tribal governments to protect environmental health.

An EPA Strategy

Several programs and regions within the EPA have some degree of involvement in capacity building, as the Agency has long recognized the value of stakeholder involvement in defining and addressing local environmental problems. Initiatives generally center on information sharing, empowerment, and skills development. They involve partnerships with a range of stakeholders, including communities, tribes, and MSIs.

To address stakeholders' suggestions for integrating environmental justice into capacity building, EPA has undertaken the following strategies:

- Provide access to expertise and funding for stakeholder communities and organizations to enhance their technical, legal, and organizational skills; address their environmental problems; and participate effectively in government decisions on land cleanup as well as emergency preparedness, response and management.
- Initiate and provide support for community outreach and engagement efforts both inside and outside the Agency.
- Increase the capacity of tribes and tribal colleges to assess and address relevant environmental issues.
- Build and strengthen the technical capacity of community-based organizations and environmental justice and health leaders

EPA's approach to building capacity embraces critical objectives of Plan EJ 2014 under "Supporting Community-based Action Programs,"

and the EPA Administrator's priority of "Expanding the Conversation on Environmentalism and Working for Environmental Justice." The Agency aims to empower overburdened communities to improve their health and environments through funding mechanisms, training, technical assistance, and access to information and analytical resources. EPA also supports continued engagement and community empowerment at all levels, from basic educational and leadership development to achieving healthy, sustainable and green communities.

Words to Action

EPA has undertaken the following actions to build capacity within minority, low-income and indigenous communities and tribes:

- Initiate a Community Engagement Initiative (CEI) through EPA's Office of Solid Waste and Emergency Response (OSWER).
- Provide access to grant funding and technical assistance through Community Action for a Renewed Environment (CARE) to help communities form and sustain partnerships and reduce toxic exposures.
- Increase the capacity of tribes and tribal governments to protect environmental health through training, skills development, information exchange and technical assistance.
- Build local capacity among communities to improve the health of waterways and waterfronts through the Urban Waters Initiative.
- Facilitate intergenerational engagement in environmental decision making through programs that build knowledge of environmental justice issues among minority and low-income youth.
- Provide access to funding for community-based organizations through the Environmental Justice Small Grants Program.
- Strengthen technical capacity of community-based organizations and environmental justice leaders.

- Enhance the capacities of minority-serving institutions to engage in research and workforce training.

Each of these is described in detail in the following pages.

ACTION

Initiate a Community Engagement Initiative

BACKGROUND

EPA has a responsibility to help stakeholder communities share local needs and concerns and participate meaningfully in the decision-making process. Collaborating in this way makes EPA's waste programs more effective and builds trust and long-term relationships.

OSWER's Community Engagement Initiative (CEI) aims to improve transparency and upfront collaboration with communities through authentic and meaningful engagement during EPA decision-making processes for the cleanup of contaminated sites, emergency preparedness and response, and management of hazardous substances. When communities are involved effectively, they are better able to understand their opportunities to influence decisions on environmental cleanups. The CEI is responsive to the EPA administrator's priority of "Expanding the Conversation on Environmentalism and Working for Environmental Justice," as well as the principles of the Open Government Directive: transparency, collaboration and participation.³

³ More information on the Open Government Directive can be found at: <http://www.whitehouse.gov/open/documents/open-government-directive>

Supporting Community Engagement and Innovative Community-based Approaches to Environmental Protection

EPA continues to explore opportunities to improve capacity building among its stakeholders, particularly among communities and tribes. On April 8, 2010, EPA, in collaboration with four White House offices, hosted a workshop at the Brookings Institution in Washington, D.C., to explore the roles that federal agencies play in catalyzing and supporting innovative community-based approaches and to pinpoint barriers to leveraging innovation for much greater impacts. This meeting brought together several community and tribal leaders from across the nation.

Resulting recommendations to federal agencies include:

- Create a more dynamic and interactive infrastructure to enable engagement and contributions from all organizations;
- Create more community partnership projects that cross agency and sector boundaries;
- Create a small office within a federal agency to foster interagency coordination across all government community programs and help communities access specific programs to meet their needs.

EPA has a long-term commitment to enhance community and stakeholder engagement and foster better interagency coordination.

Highlighted examples of these activities are discussed in Chapter 3, "Healthy and Sustainable Communities."

Since its release in May 2010, OSWER has made progress on the CEI implementation plan and has developed recommendations for moving forward in several key areas. Over the next year OSWER will work toward implementing specific recommendations to improve and expand community engagement planning, develop an enhanced training strategy, and build a network to

collaborate and share community engagement practices.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

The CEI focuses on communities and stakeholders affected by OSWER program activities. These include communities adjacent to Superfund sites, along with those planning to develop abandoned industrial properties, those affected by environmental disasters, and those impacted by hazardous waste management regulations. The CEI aims to strengthen relationships between the OSWER programs, its partners, and the communities they serve through improved collaboration and information sharing. Enabling communities to participate effectively in decision-making processes builds public trust in EPA and the federal government.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

The CEI activities enhance the capacity of OSWER programs to help communities participate in meaningful ways. When communities are actively involved and given opportunities to provide input, EPA can establish stronger relationships, fully consider community issues and local knowledge, avoid costly delays because of misunderstandings, and help communities identify and leverage available resources.

MILESTONES

- Revise planning processes to actively assess community needs and include community engagement activities.
- Improve outreach and education to increase community awareness and understanding of the availability of technical assistance.

- Initiate a national, multi-stakeholder dialog to solicit input regarding community engagement in OSWER National Regulation and Guidance Development.
- Assess the effectiveness of Superfund site information repositories and identify potential barriers and solutions to information delivery, including electronic access/digital divide.
- Develop an OSWER-wide training strategy to ensure key personnel are trained in community engagement.
- Develop an ongoing Community Engagement Network to showcase, share and exchange community engagement practices among EPA waste programs, regions, states, tribes and stakeholders.
- Develop an annual progress report for the CEI.

ACTION

Provide Access to Grant Funding and Technical Assistance through Community Action for a Renewed Environment (CARE)

BACKGROUND

Community Action for a Renewed Environment (CARE) provides grant funding and technical assistance to reduce toxic pollution and improve community health in sustainable ways. The program complements national regulatory approaches by building communities' capacity to address local environmental concerns. Through CARE, community leaders develop expertise in sustaining partnerships and addressing environmental issues, providing a strong basis for continued action as other environmental threats emerge. These competitive grants help minority, low-income and indigenous communities and tribes form collaborative partnerships, develop an understanding of the local sources of risk from toxic pollutants, and carry out projects to reduce risks through collaboration in ways that will

continue beyond the two-year grant period. CARE grants foster federal-to-local partnerships that complement EPA's traditional regulatory and enforcement efforts by providing targeted assistance to communities at highest risk.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

CARE grants can be awarded to local nonprofit organizations, tribal governments and Native American organizations, local governments, colleges and universities. State agencies are not eligible but are encouraged to be partners. There are currently 68 CARE communities, over 90 percent of which have environmental justice concerns.

The CARE Program in Action

CARE communities have provided information and/or environmental testing to over 4,000 homes; involved more than 6,000 young people in community-based environmental protection; worked to reduce risks in almost 300 schools; and provided environmental information to more than 2,800 businesses and 50,000 individuals.

- 50 percent of CARE communities are working on projects that improve air quality;
- 50 percent of CARE communities have practices in place to ensure the safety of chemicals;
- 30 percent of CARE communities are cleaning up their local environments;
- 30 percent of CARE communities are working on projects to protect America's waters; and
- 25 percent of CARE communities are taking action on climate change.

- enhance communities' ability to set priorities for risk-reduction activities; and
- establish self-sustaining, community-based partnerships.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

CARE communities form partnerships across a broad range of stakeholder groups to identify, assess, and address local priority risks and environmental concerns resulting in cleaner, healthier and more productive communities. These partnerships are essential to the successful reduction of small pollution sources and therefore complement and strengthen EPA's regulatory programs. The CARE program is responsive to all of EPA Administrator Jackson's priorities and supports the Plan EJ 2014 goal and crosscutting focus area of "Empowering Communities to Take Action that Will Improve their Health and Environment" and "Supporting Community-based Programs."

MILESTONES

- Monitor and report on the number and percent of communities that have developed and agreed on a list of priority toxic and environmental concerns using the CARE partnership process (annual and cumulative).
- Evaluate implementation of local solutions to address an agreed-upon list of priority toxic and environmental concerns using the CARE partnership process (annual and cumulative).

The CARE program complements EPA's efforts to:

- reduce exposures to toxic pollutants through collaborative action at the local level;
- increase understanding of all potential sources of exposure to toxic pollutants;

ACTION

Increase the Capacity of Tribes to Protect Environmental Health

BACKGROUND

Tribal communities face many challenges to maintaining healthy environmental conditions. Development, maintenance and enhancement of tribal environmental programs and related activities are essential to ensure the health, safety and welfare of tribal communities and members. Under EPA's 1984 Policy for the Administration of Environmental Programs on Indian Reservations, the Agency recognizes tribal governments as the primary parties for setting standards, making environmental policy decisions and managing programs for reservations.

EPA commits to taking affirmative steps to encourage and assist tribes in assuming regulatory and program management responsibilities for reservation lands. However, much more in the way of technical, policy, organizational and infrastructure capacity is needed by the tribes and their governments to meet these expectations. Through a variety of initiatives across some of its programs and regions, EPA is advancing the development of capacity to protect health and environment for tribal communities.

National Tribal Water Council

EPA's Office of Water (OW) programs work with federally recognized tribes on a government-to-government basis and also with vulnerable, at-risk tribes in the context of environmental justice. An important focus of the EPA's National Water Program is to work cooperatively with tribes and to build their capacity to develop and implement water protection programs under the Clean Water Act and the Safe Drinking Water Act to achieve the nation's water quality goals and promote safe management of community water resources. Specifically, these programs aim to:

- generate funding for environmental program capacity building;
- close gaps in technical assistance and expertise;
- address difficulties in hiring, training, and retaining qualified environmental professionals;
- address jurisdictional issues with federal, state and local entities that can make managing and resolving environmental issues more difficult; and
- improve limited tribal infrastructure.

To further create opportunities for building capacity within tribal governments, OW intends to support the National Tribal Water Council (NTWC). The NTWC is a technical and scientific body created to assist federally recognized Indian tribes, including Alaskan natives and their associated communities and organizations, with research and information on water issues and programs that impact Indian and Alaska native tribal members. NTWC will play an important role in facilitation, ongoing interaction, coordination, and education among tribes and between tribes and the EPA on issues related to the Clean Water Act and the Safe Drinking Water Act.

Memorandum of Understanding between EPA, the Confederated Salish and Kootenai Tribes, and Salish Kootenai College

On February 17, 2007, EPA signed a memorandum of understanding (MOU) with the Salish Kootenai College (SKC) and the Confederated Salish and Kootenai Tribes. The intent of the MOU is to increase the capacity of tribal governments to protect environmental health. Specifically, the MOU aims to:

- support and strengthen the chemistry, biology, and environmental science programs at Salish Kootenai College and incorporate areas of study that are of interest to the EPA;
- support Executive Order No. 13270 (Tribal Colleges and Universities) to increase the number of qualified and diverse candidates for environmental careers;
- expand opportunities for faculty enrichment and student training;
- develop and implement programs that will motivate high school students to pursue environmental careers;
- increase the capability of SKC, a minority-serving institution in EPA Region 8, through its partnership with the Office of Human Resources and the Office of Pollution Prevention and Toxics, and assist EPA in its commitment to protecting human health and the environment; and
- support the President's Management Agenda as it relates to the strategic management of human capital (i.e., identifying and hiring talented individuals using innovative and progressive tools for recruitment).

Under this MOU, EPA's Office of Chemical Safety and Pollution Prevention has established a contract to train members of the Confederated Salish and Kootenai Tribes to conduct asbestos inspections and abatement work on tribal lands. Once trained, members will be able to inspect for and safely manage, repair or remove asbestos-containing material on tribal lands pursuant to the EPA Asbestos Model Accreditation Plan (40 CFR Part 763, Subpart E, App. C).

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

Programs that transfer knowledge, empower tribal colleges, grow an environmentally conscious workforce in the reservations, and develop the capacity of tribal governments to be effective at managing their environment and health confer valuable benefits on tribal communities. These programs will help to:

- reduce stakeholder communities' exposure to environmental hazards;
- enhance the ability of tribal governments to deliver environmental protection services; and
- improve workforce development in tribal communities.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

EPA's actions to improve tribal governments and communities' capacity to address environmental issues are in keeping with the EPA Administrator's priority of "Expanding the Conversation on Environmentalism and Working for Environmental Justice." Through these initiatives, EPA demonstrates a commitment to achieving equity in health and environmental conditions for all populations.

MILESTONES

- Promote future collaboration between EPA and tribal communities, colleges and/or governments on issues related to protecting health and the environment.
- Conduct information-sharing activities between the National Tribal Water Council and tribes and between tribes and the EPA on related Office of Water Programs issues for fiscal year 2011.
- Train interested members of the Confederated Salish and Kootenai Tribes to conduct asbestos inspection and abatement on tribal land.

ACTION

Build Local Capacity to Improve the Health of Waterways and Waterfronts Through the Urban Waters Initiative

BACKGROUND

Access to clean and safe drinking water and access to healthy ecosystems are important basic needs for all communities. Urban waters acquire large amounts of pollution from a variety of sources, including polluted runoff from urban landscapes, which create public and environmental health hazards. Urban development often makes waterways inaccessible to adjacent neighborhoods. Lack of access limits the ability of communities to reap the benefits of living close to the water. The Urban Waters Initiative assists communities, especially underserved communities, to access, improve and benefit from their urban waters and the surrounding land.

Through the Urban Waters Initiative, EPA is working with federal agency partners and local communities, especially those in urban watersheds, to improve the health of the water and the land while addressing community-identified priorities. EPA's activities under this initiative include:

- aligning its programs with other federal government programs in these communities;
- expanding its partnerships;
- building local capacity; and
- finding innovative ways to communicate the potential of safe and clean urban waters.

Through building capacity and networks of nongovernmental organizations (NGOs) and governmental agencies, the Urban Waters Initiative seeks to build long-term partnerships

that are sustainable beyond the terms of EPA involvement.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

This initiative will promote community stewardship by increasing the capacity of local groups to better understand their watersheds, which will lead to better decision making and improved restoration and protection efforts. The initiative will help EPA to:

- accelerate watershed protection at the local level through support of local watershed organizations and communities;
- enhance public participation and awareness of water quality issues at the community level;
- promote knowledge transfer among urban watershed organizations;
- increase watershed knowledge and information available to local decision-makers who write and implement laws, ordinances, and permits; and
- improve water quality over the long-term, including delisting of streams and increased recreational uses of water bodies as described by Clean Water Act Section 303(d).

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

EPA's Urban Waters Initiative is a collaborative among numerous EPA offices, including the Office of Water, Office of Environmental Information, Office of Environmental Justice, Office of Solid Waste and Emergency Response, Office of the Administrator, and regional offices. This initiative facilitates cross-program collaboration toward EPA's mission and strategic goals to improve and restore impaired water quality on a watershed basis and facilitate ecosystem-scale protection and restoration.

MILESTONES

- Fund urban watershed capacity building projects.
- Conduct general risk assessments of urban watersheds.
- Map community assets to serve the needs of urban watersheds.
- Host urban watershed community roundtables to develop partnerships.
- Conduct educational programs for local land use decision-makers on addressing degradation and impairment of waters.
- Provide outreach and technical support to funded entities to broaden participation in urban capacity building projects (e.g., training in sustainable financing and environmental leadership coaching).

ACTION

*Facilitate Intergenerational
Engagement in Environmental
Decision Making*

BACKGROUND

Young people experience the world through a different lens that allows them to bring innovative ideas to the table. Innovation, coupled with intergenerational information transfer, can bolster efforts to address complex environmental issues. EPA is committed to ensuring that minority and historically underrepresented adult and youth populations participate in the process of environmental decision making in a meaningful way.

In an effort to promote intergenerational engagement and encourage public participation, the EPA Office of Environmental Justice (OEJ) is hosting several workshops to educate minority and low income youth about environmental justice

issues, job opportunities, and the skills necessary to address critical environmental concerns.

Fourteen to 25 year-olds from communities with environmental concerns and/or with an interest in environmental health science are the targets of this initiative. Workshops are held in collaboration with community-based partners.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

In support of EPA's priority to expand the conversation on environmentalism and to work for environmental justice, the youth workshops are co-located with meetings of the National Environmental Justice Advisory Council (NEJAC) to provide civil engagement and networking opportunities for participants. Workshops help participants to:

- promote environmental justice in their communities;
- identify opportunities to participate in environmental decision making;
- join the workforce to contribute to environmental change; and
- craft and deliver messages during public comment periods in EPA's decision-making processes.

Workshop participants have reported feeling empowered to engage in the environmental decision-making process and to join the workforce that brings about environmental change. Attendees have also stated that information provided at the workshops increased their knowledge of environmental activities and their understanding of how communities engage in these activities.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

The workshops allow EPA to expand its previously limited engagement with minority and

low-income youths. Workshops also create an opportunity to work collaboratively across program offices, including the Office of Children's Health Protection, the Office of Human Resources, the Office of Public Engagement, and local partners. Through this initiative, EPA supports a new generation of environmental health researchers, practitioners, and advocates, which aligns with the Agency's priority of "Expanding the Conversation on Environmentalism and Working for Environmental Justice."

MILESTONES

- Develop a template for hosting workshops that can be replicated in other regions.
- Conduct youth workshops in several regions.
- Increase youth exposure to environmental policy issues.
- Provide a venue for civil engagement through participation in public comment venues.
- Inform EPA outreach strategies by identifying social media outlets that are used by young people.
- Pilot workshops among middle school, high school and college students.

ACTION

*Provide Access to Funding
Through Environmental Justice
Small Grants Program*

BACKGROUND

Successful collaborative partnerships involve well-designed strategic plans to build, maintain and sustain them. In Fiscal Year 1994, the Office of Environmental Justice (OEJ) established the Environmental Justice Small Grants Program (EJSG). Grants assist community-based/grassroots organizations, churches and

tribal governments in building collaborative partnerships to help them understand and address local environmental and public health issues in their communities.

Since its inception, the EJSG program has awarded more than \$21 million in funding to 1,200 community-based, local, and tribal organizations.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

EJSG stakeholders include, but are not limited to, community-based nonprofit organizations, local government agencies, federally recognized tribal governments, tribal organizations, foundations, and academic researchers. EJSG grants can be awarded to community-based nonprofit organizations, including environmental justice networks, faith-based organizations, and those affiliated with religious institutions, federally recognized tribal governments, and tribal organizations.

Each project reveals solutions to the diversity of problems found in neighborhoods and communities across the country. Projects place a premium on community and family health. Examples of benefits to past and current grantees include:

- increased understanding of the potential sources of exposure to environmental hazards;
- education for migrant farmworker communities about coliform contamination on farms and in labor camps through community awareness conferences and by involving federal and state agencies with jurisdiction over water supplied to affected communities;
- increased awareness about environmental health hazards, such as lead-based paint;
- development of educational materials and outreach strategies for reducing risks posed by environmental hazards in neighborhoods;
- protection of surface water and groundwater on Native American reservations through the development of national criteria for

abandoned wells and by strengthening the cooperative working relationships with non-tribal units of government; and

- development of an interactive approach to helping children recognize and manage asthma symptoms and improve their academic performance through Open Airways for Schools, an innovative asthma education program.

In addition to improving conditions in specific communities, many of the projects serve as models that can be applied in similar situations across the country.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

EPA recognizes that community involvement is critical to environmental decision making. The EJSG program is responsive to EPA's early commitment to invest resources in projects that benefit minority, low-income, indigenous communities and tribes. The EJSG program advances EPA's Plan EJ 2014 goal to "Empower Communities to Take Action that will Improve their Health and Environment."

MILESTONES

- Announce solicitations and award grants for \$1.2 million for projects to research, educate, empower and enable communities to understand and address local environmental and public health issues for fiscal year 2011.
 - Forty grants of up to \$25,000 support projects that address local environmental issues through collaborative partnerships.
 - Four grants of up to \$50,000 support research on the environmental and human health impacts of exposure to multiple sources of pollution in communities.
 - Grants totaling \$200,000 in fiscal year 2011 to support communities directly

impacted by the British Petroleum oil spill.

ACTION

*Strengthen Technical Capacity of
Community-based Organizations
and Environmental Justice
Leaders*

BACKGROUND

Community capacity has been defined as "a set of dynamic community traits, resources, and associational patterns that can be brought to bear for community-building and community health improvement."⁴ Community capacity building emphasizes assets and empowerment (versus disease and deficiency), bottom-up, community-determined processes and agendas (versus top-down/externally determined ones), and the processes for developing community competence.

A commissioned paper on capacity building, presented at the 2010 symposium, identified important activities to strengthen community capacity. These include leadership, participation, skills, resources, social and organizational networks, and sense of community. Also essential are an understanding of community history, power, values, cohesion, and language capacity. Strategies for enhancing community capacity may include training and technology transfer, technical assistance, community-based participatory research (CBPR), empowerment approaches, and community organizing/social action.⁵

⁴ Norton, B., et al. 2002. Community capacity: Concept, theory and methods. DiClemente, R., et al. eds. *Emerging Theories in Health Promotion Practice and Research: Strategies for Improving Public Health*. San Francisco, Jossey-Bass. 2002.

⁵ The commissioned paper on community capacity is available at <http://www.epa.gov/ncer/events/calendar/2010/mar17/papers.html>

The paper's authors noted that capacity-building strategies giving more control to communities (e.g., CBPR, empowerment, and community organizing) may better address the fundamental causes of environmental disparities—which stem from the lack of political power—than agency-controlled processes like training and technical assistance. These community-driven strategies, however, require a higher level of commitment from communities, researchers and agencies, as well as a new set of capabilities on the part of agency personnel with regard to the skills needed to facilitate meetings, communicate clearly, and create an atmosphere of inquiry and trust.

In order to more effectively reduce disparate environmental exposure and engage the public in making environmental policy decisions, EPA must involve relevant constituencies early in the process, provide them with the resources and information for effective participation, and ensure that the outcomes reflect their participation.

Helping communities develop the capacity to create, access, interpret, and use scientific information and changing agency practices to better incorporate community voices in activities and decisions will be a key task. The following actions, if applied, will help to establish programs and provide federal government support that will increase technical and scientific capacity in communities.

- In response to the growing asthma problem that disproportionately affects minority and low-income populations, the EPA's Office of Air and Radiation (OAR) established the Asthma Program Through this program, OAR collaborates with partners to support research and educate the public about asthma and ways to manage environmental triggers. Partners include government agencies, universities/research centers, the healthcare community, nonprofit organizations and community programs. Major program activities are centered on the Communities in Action for Asthma-Friendly Environments initiative. They include support for peer-to-

peer learning, technology transfer, and resources for community-based asthma programs through www.AsthmaCommunityNetwork.org, the National Asthma Forum, and regional events. They also benefit from support to nonprofit organizations focused on healthcare provider training, improving school environments, and raising public awareness about asthma.

- OAR has a long history of supporting capacity building through its partnership with the Institute for Tribal Environmental Professionals (ITEP) at Northern Arizona University. OAR supports the training and educational efforts of ITEP in the areas of air quality, climate change impacts, and adaptation planning, as well as the work of the Tribal Air Monitoring Support (TAMS) Center, which builds and strengthens the technical capacity of tribal staff.
- ORD proposes a program, in partnership with other government agencies, private nonprofits, professional societies and private foundations, to develop the capacity of community leaders to understand the role of science in decision making and to use data to document disparities and concerns in their communities.
- EPA proposes periodic trainings on applying for research and program grants for community-based organizations through its grants office and ORD.

Several research solicitations are under consideration to address topics raised at the symposium. Projects will employ CBPR approaches, such as establishing Centers of Excellence on Environment and Health Disparities. They will examine the joint impacts of social and physical environmental conditions and processes on health, link with community health clinics to increase their capacity to address occupational and environmental health concerns, and design policy solutions to prevent and ameliorate disparities. Additionally, the Agency is considering establishing a research capacity-building grant program for community-based organizations.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

These capacity-building actions can help the public address environmental health issues and will allow communities to participate effectively in decision making. They will also increase confidence that concerns about power dynamics between academic or government researchers and communities will be taken seriously.

Actions undertaken by the Asthma Program, for example, will equip stakeholder communities and organizations to assess, organize and deploy community resources to reduce or eliminate exposure to asthma triggers and improve health outcomes for people with asthma. The actions help support and strengthen the capacity of healthcare and environmental professionals, schools, and community-based organizations to develop comprehensive asthma care strategies in partnership with impacted communities. By sharing their results, they can accelerate improvements across the national asthma care landscape.

Through the partnership with ITEP, tribes are better able to fashion their own responses to environmental issues, such as climate change, and acquire a better understanding of how to participate effectively in the environmental decision making of federal, state, and local regulatory agencies.

Proposed research will inform programs, policies, and strategies for more effective environmental health protection for disadvantaged, underserved, and environmentally overburdened groups.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

The Communities in Action initiative and the Asthma Community Network will introduce community strategies that the Asthma Program

will use to bolster the Agency's national asthma education and outreach efforts. When tribal perspectives are effectively communicated, EPA is more cognizant of tribal issues and is able to make better-informed decisions concerning its rules, programs, and policies. As tribes take on more responsibility for implementing air programs, EPA may be able to reduce some of its implementation efforts.

Air Pollution Monitoring in Tribal Communities

The EPA has a longstanding partnership with tribal organizations to support three important network sites on tribal lands of the Cherokee, Alabama-Coushatta and Santee Sioux. Established in 1987, the Clean Air Status and Trends Network (CASTNET) monitors several air pollutants with negative environmental and health effects. Locating monitoring sites on tribal lands enhances a tribe's ability to develop and run their own programs, protecting their communities and environments. Collected data enable communities to better understand the air quality issues they face. For more information see <http://www.epa.gov/castnet>.

The proposed research-oriented activities will help institute program development and strategic institutional change within EPA regarding the conduct of research and the application of science in decision making. The goal is to increase democratization in the conduct of—and community access to—EPA/ORD research. Activities will produce principles of community engagement in research, science and results that are more relevant to environmental problems faced by the public; and research results that are more easily translated to inform policy change and interventions.

MILESTONES

- Support and grow an online community network of stakeholders that serves as a real-time resource for mentoring and collaboration to support community asthma management programs (fiscal year 2011 and ongoing).
- Develop Web-based tools that facilitate collaboration, problem solving, and learning among leaders of asthma programs (fiscal year 2011 and ongoing).
- Facilitate knowledge transfer among stakeholders through EPA sponsorship of pacing events including Webinars, the National Asthma Forum, and regional events for community-based asthma programs (fiscal year 2011 and ongoing).
- Train healthcare professionals to better integrate the assessment of environmental factors into a comprehensive, culturally appropriate asthma care plan based on national standards of care for fiscal year 2011.
- Continue funding for ITEP and the TAMS Center.
- Continue OAR involvement in developing ITEP's curriculum and training and continue oversight of the TAMS Center.
- Institute a pilot program for up to fifteen community leaders to meet the decision-makers on environmental health and environmental justice by late fiscal year 2013.
- Issue a joint RFA with National Institute of Health (NIH) National Institute on Minority Health and Health Disparities (NIMHD) to establish national research Centers of Excellence on Environment and Health Disparities by fiscal year 2012.

ACTION

Enhance the Capacities of Minority-serving Institutions to Engage in Research and Workforce Training

BACKGROUND

EPA has a long-standing interest in cultivating future environmental professionals and increasing the diversity of students pursuing environmental careers. Minority academic institutions, such as historically black colleges and universities (HBCUs), need to be more involved in addressing environmental justice and new and expanded areas of research on environmental health disparities.

ORD/NCER's fellowship program is implementing initiatives to strengthen EPA efforts that encourage and support environmental justice research among the next generation of environmental scientists and engineers. For example, environmental justice research topics are highlighted in the Science to Achieve Research (STAR) Fellowships RFA, and environmental justice considerations have been included as review criteria under "Broader Societal Impacts" for all fellowship applications.

Further, as part of the Greater Research Opportunities (GRO) fellowship, ORD has a goal to enhance capacity at academic institutions that receive less than \$35 million in annual federal funding for environmental research. NCER has added resources to the program to increase GRO-funded students.

OSWER will support research through the Faculty and Student Teams (FaST) program, which is a cooperative effort between the Department of Energy (DOE) Office of Science and the National Science Foundation (NSF). Faculty

from colleges and universities with limited research facilities and those institutions serving underrepresented populations, such as women, and minorities, in the fields of science, engineering, and technology are encouraged to apply. The FaST program will support a team comprised of one faculty member and two to three undergraduate students, providing hands-on research opportunities in DOE or EPA national laboratories during the summer. The faculty member identifies a mutually beneficial research area amenable to collaboration with the laboratory scientist.

An EPA Region 6 initiative will nurture partnerships between universities and community groups to increase the capacity of minority, low-income, indigenous communities and tribes to address environmental challenges through technical assistance. MOU's are currently in place between the University of Texas El Paso (UTEP) and EPA Region 6, EPA's Office of Water, and Texas A&M Kingsville.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

This opportunity nurtures a new generation of environmental scientists, engineers, and policy-makers who can apply their acquired knowledge of environmental justice to future research that will promote broad environmental protection. Increasing the reach of the GRO program will promote research and training at minority-serving institutions that may have special expertise on environmental justice matters. Through the Region 6 partnership with University of Texas, EPA will increase knowledge about technical capacity of partnering universities and a community perspective regarding the need for technical assistance.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

Including environmental justice considerations as review criteria can serve as a model for other competitive EPA programs and promote a culture that considers environmental justice implications in relevant agency funding activities. The process of increasing the reach of the GRO program will translate into stronger outreach to MSIs and highlight the critical role they play in the nation's R&D enterprise to address environmental protection challenges.

Region 6's existing MOU's are intended to improve the quality of environmental science and technical education, increase the relevance of UTEP research projects to EPA's environmental and public health mission, and increase the number of culturally diverse students pursuing graduate study and careers in science, engineering, and mathematics. It is expected that UTEP's capacity to develop environmental specialists for EPA employment will be significantly enhanced, while important contributions will be made to EPA's overall research and development programs.

MILESTONES

- Increase number of STAR fellows pursuing research directly related to environmental justice and the concerns of impacted communities.
- Measure success of EPA Region 6 initiatives with universities by the activity of the workgroups and the number of projects that result from the initiatives.

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CHAPTER 5

Science



The Context

The importance of science in EPA's work underscores the need for scientific data that are defensible, reproducible, and informative. In addition, for environmental justice stakeholders, in particular, it is essential that the science underlying EPA's policies accounts for cumulative impacts from multiple exposures to chemical stressors.

The real-world context in which exposures to environmental contaminants occur also needs to be reflected in EPA's work, as emerging evidence demonstrates that social context may heighten the toxic effects of these exposures. Such considerations require new models for assessing the toxicity of environmental hazards, advanced methods for analyzing complex interactions between multiple stressors, and enhanced access to community-level knowledge and resources.

The importance of science in EPA's work underscores the need for scientific data that are defensible, reproducible, and informative.

Advancement of EPA's scientific agenda, methods, models, research, and information resources is necessary to address concerns about the environment, sustainability, and health inequalities. These advancements take on additional importance when viewed in the context of the Agency's mandate to achieve environmental justice as required by Executive Order 12898 and its ability to contribute effectively to Healthy People 2020's goals of eliminating health disparities and creating social and physical environments that promote health for all populations.¹

¹ More information on Healthy People 2020, can be found at: <http://www.healthypeople.gov/>

Voices of Environmental Justice Advocates and Symposium Participants

A consistent theme throughout EPA's March 2010 forum, "Strengthening Environmental Justice Research and Decision Making: A Symposium on the Science of Disproportionate Environmental Health Impacts," was the connection between science and policy. Discussions focused on identifying research and scientific needs to ensure that environmental justice concerns are incorporated into EPA's policies.



Environmental justice advocates suggested that EPA work toward a more holistic understanding of environment and health, offering the following specific recommendations:

- Create and institute a new scientific research approach focused on developing a more holistic understanding of environment and health that encourages the formation of multidisciplinary teams, incorporates the concept of vulnerability, and takes into account the impacts of inequality, racism and other social issues.
- Integrate perspectives from community decision-makers in developing EPA's scientific

research agendas, conducting exposure/risk assessments, and making risk management decisions.

- Fund community-based participatory research, community-owned research, and trans-disciplinary research that benefits disadvantaged, underserved, and environmentally overburdened communities and groups.
- Collaborate with other federal government agencies to conduct research that addresses environmental health disparities and to integrate environmental justice into all research activities.
- Enhance the capacities of minority academic institutions to engage in scientific research and workforce training.
- Develop and implement a multimedia approach for addressing cumulative contaminant exposures in environmental justice communities.
- Provide federal government support and establish programs to increase technical and scientific capacity in communities.
- Develop analytic tools, assessment tools, and data collection approaches that can be used by community health advocates and environmental justice groups.
- Build capacities and skills among staff and scientists in EPA's Office of Research and Development to conduct research and other science-related activities in equal partnership with impacted communities.

Although not a focus of the symposium, sustainability of the natural environment and protection/restoration of ecosystem services is also important for reducing environmental as well as health disparities. Part of the environmental-inequity problem is that people living, working, and learning in degraded and/or polluted areas lack equal access to benefits of the natural environment, as well as being at higher risks of exposure to environmental contaminants. It is important that programs aimed at solving these problems take a systems approach to community needs, integrating environmental, social and

economic considerations to generate better decisions.

An EPA Strategy

EPA's vision, goals and strategies on science to support environmental justice and achieve health equity are informed by several published conceptual frameworks (CSDH, 2008; Gee and Payne-Sturges, 2004; Habermann and Gouveia, 2008; Krieger, 2001; Morello-Frosch, 2002; Morello-Frosch and Shenassa, 2006; Norton et al., 2002; Schulz et al., 2002; Wakefield et al., 2010).

The Agency projects that by 2015 its research will employ participatory principles and integrate social and physical sciences to bring about solutions to environmental and health inequalities among minority, low-income, and indigenous communities and tribes. The overarching goal is to advance the scientific basis for policy decisions to ensure that everyone enjoys the same degree of protection from environmental and health hazards, along with equal access to the decision-making process, in order to have a healthy environment in which to live, learn, work, and play.

EPA's ongoing and proposed actions are reflected in strategies to:

- apply trans-disciplinary and community-based research approaches that address multimedia, cumulative impacts in environmental health;
- create mechanisms to incorporate perspectives from community-based organizations and community leaders into EPA research;
- leverage partnerships with other federal agencies on issues of research, policy, and action to address health disparities; and
- build and strengthen the capacity of Office of Research and Development (ORD) scientists on conducting research in partnership with impacted communities and translating research results to inform change.

Words to Action

EPA has undertaken the following actions to identify research and scientific needs to ensure that environmental justice concerns are incorporated into EPA's policies:

- Develop trans-disciplinary research programs on environment and community health.
- Develop guidance, methods, tools, and data to integrate environmental justice into decision making.
- Conduct exposure and health research in near-roadway environments.
- Incorporate perspectives from community-based organizations and engage in collaborative partnerships.
- Partner with other federal agencies in the Federal Collaboration on Health Disparities Research (FCHDR).
- Enhance EPA's capacity for science partnerships with impacted communities.

Each of these is described in detail on the following pages.

ACTION

*Develop Trans-disciplinary
Research Programs on
Environment and Community
Health*

BACKGROUND

Social, economic, physical, chemical and biological factors contribute to these hazards, so research and tools that inform policy need to better account for the complex interactions that result in unequal environmental health conditions and disproportionate impacts among minorities, low-income and indigenous communities and tribes. Furthermore, members of these communities

should share fully in making decisions that affect their health and environment.

The administration at EPA, particularly in the ORD, recognizes that fragmented research programs cannot solve twenty-first century environmental challenges. Under the leadership of Assistant Administrator Paul Anastas, ORD is integrating twelve media-specific research programs into four trans-disciplinary programs aligned with EPA's new strategic plan. Sustainable and Healthy Communities, a trans-disciplinary research program on environmental and community health, aims to address several topics raised at the symposium and conducts research in a manner consistent with principles of community-based participatory research. For the program to be successful, incorporating community perspectives and implementing the recommended actions on capacity building is critical.

As part of the new Healthy and Sustainable Communities research program, several EPA Science to Achieve Results (STAR) grant solicitations² are being considered to support environmental health research in tribal communities and to establish Centers of Excellence on Environment and Health Disparities. The centers will examine the joint impacts of social and physical environmental conditions, processes, and systems on health RFA in collaboration with NIH's National Institute on Minority Health and Health Disparities (NIMHD).

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

ORD's new research program is responsive to suggestions from symposium participants for EPA to create and institute a scientific research approach that facilitates a more holistic

² More information on STAR grants can be found at: <http://www.epa.gov/ncer/rfa/>

understanding of health and the environment. The program presents an opportunity for ORD to better integrate perspectives from community residents and leaders, community-based NGOs, and community health and environmental quality advocates into the development of the research plan.

The hallmark of the proposed trans-disciplinary approach is “systems thinking,” which examines the complex interactions among social, natural and built environmental systems—the conditions and policies that impact human health and wellbeing. To address environmental justice concerns, this program will need to direct its attention to how these complex interactions result in inequitable environmental health conditions and disproportionate impacts among disadvantaged population groups, communities, neighborhoods and individuals.

Anticipated outcomes include new information and tools to incorporate more holistic environmental decision making at national, regional, state, and local levels. As this program is designed to support environmental justice concerns, it will also inform strategies for alleviating systemic drivers of racial and socio-economic disparities in access to healthy environments.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

Input on the proposed Sustainable and Healthy Communities Research Program is being sought from a variety of environmental justice stakeholders. These stakeholders include federal, state, county, and local governmental officials, community groups and leaders, and industry representatives. By bringing together a diversity of disciplines to plan and implement this type of integrated research program, EPA can more effectively develop innovative and sustainable solutions to complex, twenty-first century environmental problems that are responsive to

stakeholder needs. Several external advisory committees continue to recommend this approach.

MILESTONES

- Host regional listening sessions to gather input from communities.
- Incorporate ideas and concerns from stakeholders and representatives of disproportionately impacted communities and populations.

ACTION

Develop Guidance, Methods, Tools, and Data to Integrate Environmental Justice into Decision Making

BACKGROUND

EPA’s regulatory decision making is informed by scientific data and analysis. To facilitate the process, EPA scientists and decision-makers, as well as communities, community advocates and other stakeholders, require systematic guidance on how to conduct these analyses. They depend on scientifically valid tools and methods and on information communicated by environmental data. While tools for advancing environmental health protection have seen significant investment by the EPA, they have not been fully developed to specifically address environmental justice.

EPA’s commitment to integrating environmental justice into all of its decisions, policies and programs is evident in the ongoing development of technical guidance, analytic methods, tools, and data. To further the initiative, ORD, in collaboration with the Office of Environmental Justice and the Office of Children’s Health Protection, commissioned scientific papers on the factors prevalent among minority and low-income

populations that are associated with disproportionate exposures and/or health risks. The papers, a focus of the March 2010 symposium, cover both subject matter reviews and methodological issues. They will serve as resources for the proposed technical guidance tool and will inform EPA about scientific gaps in order to advance the development of analytical methods for integrating environmental justice considerations into analytical frameworks.

Meanwhile, EPA's Office of Air and Radiation (OAR) is piloting several analyses that will reveal the potential implications of air rules on minority, low-income and indigenous populations. Analytical approaches now under evaluation include:

- proximity-based socio-demographic analyses that highlight the characteristics of those living closest to sources of air pollution;
- exposure and health-risk modeling that breaks out data based on socio-demographic characteristics (e.g., race, income); and
- benefits mapping that shows the distribution of benefits of a regulation to various socio-demographic groups.

Additional related ORD activities include:

- developing an index to measure county-level environmental quality, which will increase understanding about the contributions of multiple stressors to health disparities in minority, low-income, and indigenous communities and tribes;
- evaluating existing tools developed by its scientists with respect to appropriateness and ease of use for experts in communities;
- working with stakeholders to develop a series of free trainings and partner with various organizations to host a tools-training workshop;
- implementing a multimedia approach to cumulative contamination exposures in communities facing environmental justice issues; and

- developing cumulative risk/impact assessment tools, techniques, and mapping that can be applied on multiple geographic scales. For example, the office recently committed \$8 million in research investment through STAR grants on cumulative risk assessment methods that incorporate community social contexts (non-chemical stressors) and indicators of population vulnerability.³ Results will be disseminated for use in EPA program offices.

EPA's Office of the Science Advisor and ORD's National Exposure Research Laboratory have launched an initiative to develop the web-based Cumulative Risk Assessment Environmental Justice Wizard (CRA-EJ wizard). The CRA-EJ wizard is being designed as a tool for communities to assess multi-media environmental and socioeconomic risks as well as a means to develop and test environmental justice issues within the context of developing cumulative risk assessment guidelines for EPA. The project recognizes the relationship between vulnerability and health disparities and the need to explore both concepts within the risk assessment paradigm. Developers will engage stakeholders to inform the development of the CRA-EJ Wizard. The effort aims to build skills among EPA/ORD scientists to design research and risk assessment protocols informed by collaboration with affected communities.

The CRA-EJ Wizard will be a walk-through tool in EPA's Community-Focused Exposure and Risk Screening Tool (C-FERST)^{4,5}. It will evolve toward an automated guide for cumulative exposure and risk assessments with special considerations for environmental justice. The CRA-EJ Wizard will use data sources in C-FERST, both current and planned, but will also include other factors often considered in

³ More information about these STAR grants is available at <http://www.epa.gov/ncer/cumulativerisk>.

⁴ C-FERST; <http://www.epa.gov/ncer/c-ferst>;

⁵ Zartarian, VG, Schultz, BD, Barzyk, TM, Smuts, M, Hammond, DM, Medina-Vera, M, Geller, AM. "The EPA's Community-Focused Exposure and Risk Screening Tool (C-FERST) and its potential use for environment justice efforts," *AJPH*, in press.

environmental justice analyses such as community assets. This broader framework for decision making should lead to more sustainable outcomes as a result of a more complete understanding of the factors constituting and contributing to risk in the identified populations.

Participants in the March 2010 symposium requested that EPA develop easy-to-use GIS tools. ORD's National Atlas of Ecosystem Services is developing an urban atlas, which will include high-resolution mapping for 100 to 250 urban areas selected along several gradients of concern (e.g., size, location, and environmental and health conditions). This program is expected to:

- measure and communicate the type, quality, and magnitude of services that people receive from ecosystems so their true value is considered in decision making;
- reveal underserved areas where management to enhance specific ecosystem services would benefit community health and wellbeing;
- identify low-income and other vulnerable and underserved sub-populations that may benefit disproportionately from "green" infrastructure;
- stratify urban areas to develop separate estimates of ecosystem services for communities identified as socially vulnerable; and
- incorporate accessible health data to map aspects of population susceptibility to diminished or degraded services.

EPA is conducting this project in collaboration with multiple federal agencies, including the U.S. Department of Agriculture (USDA) Forest Service, the U.S. Geological Survey, and the Centers for Disease Control and Prevention, as well as academic and other educational organizations. EPA regions and ORD are interacting with communities to identify priority issues and build capacity for working with mapping tools that will inform risk evaluation and management decisions.

EPA's National Clean Diesel Campaign Tools and Resources

EPA recognizes the health risks associated with diesel emissions and has classified diesel exhaust as a likely carcinogen at existing ambient concentrations. Many scientific studies link diesel exhaust and its components, such as particulate matter (PM or soot), ground-level ozone (smog) and other air toxics, to serious respiratory and cardiac health damage, heart and lung disease, chronic bronchitis, exacerbation of asthma symptoms, and premature mortality. Minority and disadvantaged populations may receive disproportionate impacts from diesel emissions. Activities of the National Clean Diesel Campaign (NCDC) further EPA's commitment to reduce health and environmental harm from diesel emissions across the country. Comprehensive tools and resources, including funding information, state and local toolkits, best practice materials, case studies, and the Diesel Emissions Quantifier tool to estimate emissions reductions, are available on NCDC's Website, www.epa.gov/cleandiesel.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

The guidance, methods, tools and data to advance the integration of environmental justice into EPA's decision-making processes represents several symposium participant comments. These activities address suggestions for EPA not only in science but across policy, capacity building and promoting healthy and sustainable communities to:

- Adopt multimedia, cross-program approaches to address cumulative environmental exposures in stakeholder communities and re-structure risk assessment to better account for multiple stressors;
- Integrate environmental justice into all of its decisions, which will help EPA staff develop regulatory options to fully protect the

environment and health of all individuals and help communities better understand their environmental problems.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

These actions are responsive to several core focus areas of EPA's Plan EJ 2014 and the principles of environmental justice articulated in EPA's FY 2011–2015 Strategic Plan. They also address the Executive Order 12898 mandate requiring that EPA identify and respond to disproportionate human health effects of its policies, programs and activities on minority, low-income, and indigenous communities and tribes.

- Research grants on cumulative risks and impacts should bring about new approaches to incorporating community knowledge into the development of tools and the application of qualitative approaches and social science methods into cumulative impact assessments.
- The Urban Eco-services Atlas, C-FERST and CRA-EJ Wizard will benefit EPA programs by engaging with stakeholders to address the community-based assessment of cumulative risks. The tool will improve the capacity of EPA regional risk assessors to assist communities in understanding the complexity of risk and means by which to identify priorities.
- Initial community interaction for the development of the urban atlas will proceed through existing EPA initiatives such as the CARE and EJ Showcase programs and the EPA/HUD/DOT Partnership for Sustainable Communities. Information about ecosystem services will expand options for improving community health and wellbeing and will clarify economic and other trade-offs involved in alternate environmental mitigation and remediation decisions. The selection of focal urban areas along several gradients will facilitate the application of observed linkages between community welfare and ecosystem

services to additional populated areas of concern.

MILESTONES

- Develop and refine screening tools that identify air rules that raise potential environmental justice concerns.
- Identify analytical tools that are most appropriate for particular types of air rulemaking activities.
- Host community-based tools workshop(s) with a focus on environmental justice and health disparities to inform EPA's actions under Plan EJ 2014.
- Develop and finalize the Environmental Quality Indicator (EQI).
- Issue RFA on innovative applications of Health Impact Assessment process and related decision support tools (GIS mapping, indices of disproportionate impacts) to environmental regulatory decisions.
- Develop and beta-test the CRA-EJ Wizard by the end of 2011.
- Complete the first phase of the urban atlas and the second phase of C-FERST in fiscal year 2013.

ACTION

Conduct Exposure and Health Research in Near-roadway Environments

BACKGROUND

Studies have shown that people who live, work, or attend school near major roadways have an increased incidence and severity of certain health problems. Health effects include reduced lung function and impaired development in children, asthma, cardiovascular disease, low birth weight, pre-term newborns, and premature death.

EPA's Air, Climate, and Energy Research Program has launched a multidisciplinary series of near-roadway studies. The research objectives are to:

- identify and define mobile source emissions by monitoring near roadways with varied traffic levels and vehicle classifications;
- assess factors affecting the variability of near-roadway air pollutants, such as traffic activity and roadway-design features;
- improve modeling tools for near-roadway air quality and human exposure assessments; and
- assess the health effects of near-roadway exposures.

Key scientific questions include:

- How do traffic and roadway emissions affect exposures and adverse health effects for populations living, working, or going to school near roadways?
- What tools for use in regulatory decision making and transportation planning are available, or can be produced, to identify the relationship between traffic emissions and adverse health effects?
- Do public facilities near major roadways present a health risk to their occupants?

This research program is being conducted in collaboration with EPA policy-makers and with the Federal Highway Administration (FHWA). Field data collection has been completed in Raleigh, N.C., and Las Vegas, N.V. EPA scientists plan to continue their collaboration with the FHWA to measure, define and profile roadway air pollutants with a study in Detroit, MI. In addition, EPA researchers will begin a year-long study with researchers from the University of Michigan to examine potential health effects of air pollution to asthmatic children living near busy highways in Detroit. The collaboration will enable further investigation into the types of pollutants common near roadways, the ways people are exposed to them, and the relationship between types and extent of exposures and the severity of certain health effects. Researchers will evaluate the likelihood of traffic-related pollution being the

cause of severe asthma attacks and respiratory viral infections in children between the ages of six and fourteen.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

The near-roadway research will provide important scientific data and tools for federal, state and local governments and organizations to make decisions about future road projects and to address health concerns related to roadways. Results are expected to inform the development of federal regulatory and voluntary programs to reduce air pollution along highways. State highway and environmental agencies can use the science to assess the local health impacts of transportation decisions. The information also can assist local school districts with decisions on whether to locate new schools near large roadways and how to mitigate impacts of local roadways on existing schools.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

ORD is working closely with the Office of Air and Radiation to develop and implement this research program. In addition to informing ORD and OAR policies and programs, the results will help researchers improve the ability of computer models to reliably estimate traffic emissions and the concentrations of traffic-related air pollutants near roadways in urban areas.

MILESTONES

- Use data collected from roadway studies and scientific papers and products to improve knowledge about the impacts of traffic emissions on air quality near roadways and the possible links to adverse health effects.

ACTION

Incorporate Perspectives from Community-based Organizations and Engage in Collaborative Partnerships

BACKGROUND

EPA Administrator Lisa P. Jackson has championed “Expanding the Conversation on Environmentalism and Working for Environmental Justice.” These goals can be accomplished through the cooperation of numerous agencies, organizations, and stakeholders and through activities ranging from dissemination of information to community consultations and technical assistance.

EPA recognizes that community perspectives must influence the design of its studies, particularly those that address environmental health disparities among minority, low-income, and indigenous communities and tribes. The Agency employs community-based participatory research (CBPR) methods to engage communities in research, disseminate results in an effective manner, and involve stakeholders in the review and evaluation of recommendations.

EPA’s commitment to community engagement has already launched several significant programs.

- EPA’s EJ Showcase Community pools the collective resources and expertise of governmental and non-governmental organizations.⁶
- Community Action for a Renewed Environment (CARE), a competitive grant and technical assistance program, offers an

⁶ More information about the EJ Showcase can be found at <http://www.epa.gov/environmentaljustice/grants/ej-showcase.html>.

An Environmental Profile for Port Arthur, Texas

As part of the Environmental Justice Showcase Community effort in Port Arthur, Texas, EPA’s Region 6 will develop and annually update an environmental profile for the city. The profile will be a clear, concise outreach document for the west side of Port Arthur that summarizes joint EPA/state evaluations of the best available information about environmental conditions. The document will also inform the public of federal and state permits and authorizations and identify opportunities for input into permit conditions.

This project is multimedia and cross-divisional. The profile will require data and input from EPA staff and managers regarding air modeling, air monitoring, air planning and ozone designation, drinking water, the Resource Conservation and Recovery Act program, water quality, water permits, Resource Conservation and Recovery Act Underground Storage Tanks, and emergency response.

Upon completion, the environmental profile will help the community establish baseline environmental data and identify and prioritize environmental concerns. It will also inform the public of federal and state permits and authorizations and identify opportunities for input into permit conditions.

innovative way for communities to reduce toxic pollution in their environments.

- The Regional Applied Research Effort Program (RARE) provides each EPA regional office with \$200,000 annually for a joint research project with ORD to meet local needs.⁷ Each EPA regional science liaison coordinates RARE Program activities and is responsible for ensuring that research results are effectively communicated and utilized.

⁷ More information about RARE can be found at <http://www.epa.gov/osp/regions.htm>.

Addressing Environmental and Health Concerns in Mossville, Louisiana

EPA Region 6 developed a five-year community action plan to address the longstanding environmental and health concerns of Mossville, Louisiana, residents. The plan, launched in October 2010, incorporates input from the July 2009 Environmental Justice Listening Session. Components of the plan include:

- investigating the long-term legacy of contamination;
- conducting an assessment of Mossville's drinking water system and working with the community to address related issues;
- pursuing enforcement actions against major industrial facilities;
- securing Supplemental Environmental Projects (SEPs) to benefit the community;
- working with the state and industries to limit flaring and accidental releases;
- working with the community to address health concerns; and
- coordinating with Agency for Toxic Substances and Disease Registry ATSDR to improve awareness and availability of data and information for the community.

To solicit maximum public input, particularly from stakeholders, ORD plans to utilize new approaches to engagement and collaboration (e.g., regional outreach, RARE, and partnerships with EPA program offices and other federal agencies). EPA plans to re-establish a health and research working group within the National Environmental Justice Advisory Council (NEJAC) that will advise the EPA administrator and ORD in scientific research, health impacts, and environmental exposures and risks that directly relate to environmental justice.

EPA will integrate participatory research methods into ORD's new research program on Healthy and Sustainable Communities, and the EJ Showcase program will bring together EPA Region 6 and its host communities to develop an environmental profile for Port Arthur, Texas.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

These actions reflect suggestions from symposium participants to integrate community members' perspectives into the development of EPA's scientific research plans and data collection. Re-establishing a NEJAC health and research working subcommittee would provide a critically needed formal mechanism for stakeholders, including community-based organizations to provide input and feedback into EPA/ORD research initiatives. This ensures that community wisdom, perspectives and values are accommodated in the development of ORD's new research program.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

ORD will utilize the advice of the proposed NEJAC working group to develop the Healthy and Sustainable Communities initiative. Engaging NEJAC in these early stages is extremely beneficial in terms of setting the course, identifying critical research questions, soliciting input, and developing partnerships with community-based organization and environmental justice leaders.

Also, engaging stakeholder communities in the Port Arthur and Mossville projects in EPA's Region 6 will ensure that both projects utilize and yield locally accurate information for identifying and addressing environmental health issues and needs for these communities.

MILESTONES

- Establish a NEJAC working group on research to advise ORD on its key initiatives.
- Develop an environmental profile for the community of Port Arthur, Texas, using OEJ's EJ Showcase communities program.
- Implement components of the 5-year community plan to assess and address environmental health concerns in Mossville, Louisiana.

ACTION

Partner with Other Federal Agencies on the Federal Collaboration on Health Disparities Research (FCHDR)

BACKGROUND

Environmental justice and related concerns for health inequities are multi-dimensional, and solutions require interagency actions.

Environmental justice is not solely an EPA responsibility, just as health disparities cannot be seen solely as a Department of Health and Human Services problem. At present, the federal government approach to promoting and managing health and the determinants of health (e.g., the environment) is fragmented. Symposium participants voiced the need for a multi-stakeholder, multisystem approach to achieving environmental justice. We also need to strengthen interagency collaboration to improve research that can impact environmental and health practice, programs, and policy.

EPA's Office of Research and Development (ORD) will participate in the interagency Federal Collaboration on Health Disparities Research (FCHDR) and represent EPA on the Executive

Steering Committee.⁸ The FCHDR executive committee brings together agency representatives who seek practical solutions to advance health disparities research and foster greater federal coordination, collaboration, and communication regarding the elimination of health disparities. Federal departments represented on the committee include:

- Department of Education
- National Institute on Disability and Rehabilitation Research
- Department of Housing and Urban Development
- Department of Justice
- Department of Veterans Affairs
- Environmental Protection Agency
- National Science Foundation
- Department of Health and Human Services

FCHDR members will explore opportunities for pooling scientific expertise and resources to conduct, translate, and disseminate research that will accelerate the elimination of health disparities. Their goals and strategies are to:

- ensure that health disparities research is conducted as an integrated and inclusive field of study, rather than as an aggregate of independent research activities in separate domains;
- identify health disparities challenges, including the scientific and practical evidence most relevant to future policy and action;
- increase and maintain awareness about federal government efforts and opportunities to address health disparities;
- determine how evidence can be translated into practice to address health disparities and promote innovation;
- advise on possible objectives and measures for future research, building on the successes and experiences of health disparities experts; and
- publish reports that will contribute to the development of the FCHDR strategic vision and plan.

⁸ More information about this interagency collaboration can be found at <http://minorityhealth.hhs.gov/fchdr/>

In addition, EPA's Office of Air and Radiation, Office of Children's Health Protection, ORD and others are collaborating with additional federal agencies on the newly re-established President's Task Force on Environmental Health Risks and Safety Risks to Children. One focus of the task force is asthma among minority and disadvantaged children. A workshop on asthma disparities was held in Washington, D.C., in December 2010 to foster interagency coordination on the development and implementation of a detailed federal plan to address this problem.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

EPA's initiatives will bring better-coordinated federal approaches to research, policy and action to address environmental health disparities. This will allow more efficient use of federal resources to maximize the impact of federal government research and policy-related activities on communities' ability to address these environmental health disparities.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

EPA's participation in these two federal initiatives will identify and create opportunities to tackle disparities in health and access to clean environments. They will increase EPA/ORD access and exposure to bring non-traditional EPA disciplines, such as social science, and concepts, such as social determinants of health.

MILESTONES

- Increase interagency collaboration and joint-funding of solutions-driven research with other federal agencies on topics relevant to environmental justice and health disparities.
- Develop a joint research solicitation with NIH National Institute on Minority Health and

Health Disparities on the roles of the social and physical environments in contributing to health disparities by fiscal year 2012.

- Participate with other federal agencies on the President's Task Force on Environmental Health Risks and Safety Risks to Children to work on asthma disparities among minority and disadvantaged children by fiscal year 2011–2015.

ACTION

Enhance EPA's Capacity for Science Partnerships with Impacted Communities

BACKGROUND

In addition to increasing technical capacity in communities, EPA needs to build its capacity to work with communities. Related recommendations from the symposium that address this issue include the following:

- Train EPA staff to engage in effective outreach and dialog with communities.
- Consider using qualitative approaches in risk assessment.
- Create and support multidisciplinary teams in environmental health research.
- Examine upstream factors: social and political processes that ultimately process the disparities in risks and health outcomes.
- Explore approaches for interacting with communities that can build collective efficacy and social capital.
- Support communities as equal partners in research.
- Include community representatives and perspectives in research design.

Both ORD and the Office of Solid Waste and Emergency Response (OSWER) intend to provide training to scientists on principles of community-

based participatory research, health disparities, environmental justice and social justice and will look for opportunities to collaborate. OSWER's Community Involvement and Program Initiatives Branch (CIPIB) sponsors training courses for Superfund program Community Involvement Coordinators (CIC) and other EPA and EPA-affiliated staff. These courses provide the necessary skills, techniques, and practices to engage the community in the Superfund process. Community Involvement University (CIU) courses could be modified to address community engagement in more of the research context and offered to ORD scientists.

National Center for Environmental Research (NCER) is developing an ORD research plan for behavioral and social sciences as they impact environmental protection and the evolution of policy. Environmental justice consideration will be critical to this agenda. ORD will conduct individual and group interviews of behavioral/social science experts to identify the most relevant research as well as known gaps in the areas of behavioral economics, decision theory, management science, and risk perception.

Additionally, ORD plans to establish a cooperative agreement with a professional society concerned with applying social science research to contemporary environmental health issues. Activities under the cooperative agreement might include:

- training for ORD staff on incorporating qualitative approaches and social science methods into cumulative impact assessments;
- approaches to incorporate community knowledge in such tools for cumulative impact assessments; and
- training to cultivate analytical skills among ORD staff to examine the social and economic systems that create cumulative adverse environmental impacts in communities.

Office of Pesticide Programs Pesticide Training

The Office of Pesticide Programs (OPP) has created a new training module as part of its regular staff training program to ensure that environmental justice and sensitive population considerations are fully incorporated in the pesticide risk assessment process. The first component of the module addresses general background on environmental justice. To date, 160 OPP staff have completed training sessions on the first component of the program. The second focuses on integrating environmental justice considerations through OPP risk management for the consideration of any environmental justice issues identified by the risk assessments. EPA aims to ensure that 100 percent of risk assessors and managers are trained by the end of fiscal year 2012.

Enhanced risk assessment methodologies will result from a closer look at the toxicity and exposure patterns specific to each pesticide that could present a disproportionate risk. Areas now included in pesticide risk assessment (hazard assessment, dietary exposure, occupational and residential exposure, and incident data) will be considered through an environmental justice lens.

By improving the way environmental justice is incorporated by risk managers, the OPP training program will influence pesticide registration and re-registration decisions to better incorporate environmental justice considerations.

BENEFITS TO EPA'S STAKEHOLDER COMMUNITIES

Community input in the scientific process is essential to ensure that community perspectives are adequately reflected in scientific work that informs EPA's decision-making process. Also, increasing the capacity at EPA to conduct multi-disciplinary research guarantees that multiple determinants of health and how they interact with environmental exposures to drive disparities are

understood. Initiatives to enhance the capacity of EPA to partner with impacted communities and conduct multidisciplinary research will improve the science of environmental justice and knowledge of determinants of environmental health disparities, and subsequently help EPA identify sustainable solutions to environmental justice issues.

IMPACTS ON EPA PROGRAMS AND ACTIVITIES

We anticipate improvements in the capacity of Agency scientists to conduct research in partnership with impacted communities, to understand and employ social science methods in environmental research and translate research results to inform change. This will help enable ORD's Sustainable and Healthy Communities Research Program to meet its stated objectives.

MILESTONES

- Design a research capacity training program for ORD scientists that may include self-paced training on community-based and participatory research by 2012.
- Host workshop to develop strategy for incorporating behavioral and social sciences in ORD research plans by late fiscal year 2011.
- Increase use of social science methods and approaches in ORD research and risk assessments conducted by EPA.
- Complete the new OPP module on risk management training and ensure that 100 percent of risk assessors and managers trained by the end of fiscal year 2012.

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Appendix A: Acronyms

CARE: Community Action for a Renewed Environment

CASTNET: Clean Air Status and Trends Network

CBPR: community-based participatory research

CDC: community development corporation

CEI: Community Engagement Initiative

C-FERST: Community Focused Exposure and Risk Screening Tool

CIPIB: Community Involvement and Program Initiatives Branch

CIC: community involvement coordinators

CIU: Community Involvement University

CRA-EJ Wizard: Cumulative Risk Assessment Environmental Justice Wizard

DOE: Department of Energy

DOL: Department of Labor

DOT: Department of Transportation

EJ: environmental justice

EJSEAT: Environmental Justice Strategic Enforcement Assessment Tool

EJSC: Environmental Justice Showcase Community

EJSG: Environmental Justice Small Grants Program

ELG: Effluent Limitations Guidelines

EQI: Environmental Quality Indicator

FaST: Faculty and Student Teams

FCHDR: Federal Collaboration on Health Disparities Research

FHWA: Federal Highway Administration

FIHET: Federal Interagency Health Equity Team

GREEN: Growing Responsible Environmental Employees Now

GRO: Greater Research Opportunities

HUD: Department of Housing and Urban Development

ITEP: Institute for Tribal Environmental Professionals

IWG: Interagency Working Group

MOU: memorandum of understanding

MSI: Minority Serving Institutions

NCDC: National Clean Diesel Campaign

NCER: National Center for Environmental Research

NCMHD: National Center on Minority Health and Health Disparities

NEJAC: National Environmental Justice Advisory Council

NGO: nongovernmental organization

NIH: National Institute of Health

NPA: National Partnership for Action to End Health Disparities

NSF: National Science Foundation

NSS: National Stakeholder Strategy for Achieving Health Equity

NTWC: National Tribal Water Council

OAR: Office of Air and Radiation

OPP: Office of Pesticide Programs

OCSP: Office of Chemical Safety and Pollution Prevention

OECA: Office of Enforcement and Compliance Assurance

OP: Office of Policy

ORD: Office of Research and Development

OSWER: Office of Solid Waste and Emergency Response

OW: Office of Water

PRASA: Puerto Rico Aqueduct and Sewer Authority

RARE: Regional Applied Research Effort Program

RFA: request for application

SSI: Sustainable Skylines Initiative

STAR: Science to Achieve Research

TAMS: Tribal Air Monitoring Support

USDA: United States Department of Agriculture

Appendix B: Executive Order 12898

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Presidential Documents

Title 3—

Executive Order 12898 of February 11, 1994

The President

Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1—Implementation.

1–101. Agency Responsibilities. To the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall 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 in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands.

1–102. Creation of an Interagency Working Group on Environmental Justice.

(a) Within 3 months of the date of this order, the Administrator of the Environmental Protection Agency (“Administrator”) or the Administrator’s designee shall convene an interagency Federal Working Group on Environmental Justice (“Working Group”). The Working Group shall comprise the heads of the following executive agencies and offices, or their designees: (a) Department of Defense; (b) Department of Health and Human Services; (c) Department of Housing and Urban Development; (d) Department of Labor; (e) Department of Agriculture; (f) Department of Transportation; (g) Department of Justice; (h) Department of the Interior; (i) Department of Commerce; (j) Department of Energy; (k) Environmental Protection Agency; (l) Office of Management and Budget; (m) Office of Science and Technology Policy; (n) Office of the Deputy Assistant to the President for Environmental Policy; (o) Office of the Assistant to the President for Domestic Policy; (p) National Economic Council; (q) Council of Economic Advisers; and (r) such other Government officials as the President may designate. The Working Group shall report to the President through the Deputy Assistant to the President for Environmental Policy and the Assistant to the President for Domestic Policy.

(b) The Working Group shall: (1) provide guidance to Federal agencies on criteria for identifying disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;

(2) coordinate with, provide guidance to, and serve as a clearinghouse for, each Federal agency as it develops an environmental justice strategy as required by section 1–103 of this order, in order to ensure that the administration, interpretation and enforcement of programs, activities and policies are undertaken in a consistent manner;

(3) assist in coordinating research by, and stimulating cooperation among, the Environmental Protection Agency, the Department of Health and Human Services, the Department of Housing and Urban Development, and other agencies conducting research or other activities in accordance with section 3–3 of this order;

(4) assist in coordinating data collection, required by this order;

(5) examine existing data and studies on environmental justice;

(6) hold public meetings as required in section 5-502(d) of this order; and

(7) develop interagency model projects on environmental justice that evidence cooperation among Federal agencies.

1-103. *Development of Agency Strategies.* (a) Except as provided in section 6-605 of this order, each Federal agency shall develop an agency-wide environmental justice strategy, as set forth in subsections (b)-(e) of this section that identifies and addresses disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. The environmental justice strategy shall list programs, policies, planning and public participation processes, enforcement, and/or rulemakings related to human health or the environment that should be revised to, at a minimum: (1) promote enforcement of all health and environmental statutes in areas with minority populations and low-income populations; (2) ensure greater public participation; (3) improve research and data collection relating to the health of and environment of minority populations and low-income populations; and (4) identify differential patterns of consumption of natural resources among minority populations and low-income populations. In addition, the environmental justice strategy shall include, where appropriate, a timetable for undertaking identified revisions and consideration of economic and social implications of the revisions.

(b) Within 4 months of the date of this order, each Federal agency shall identify an internal administrative process for developing its environmental justice strategy, and shall inform the Working Group of the process.

(c) Within 6 months of the date of this order, each Federal agency shall provide the Working Group with an outline of its proposed environmental justice strategy.

(d) Within 10 months of the date of this order, each Federal agency shall provide the Working Group with its proposed environmental justice strategy.

(e) Within 12 months of the date of this order, each Federal agency shall finalize its environmental justice strategy and provide a copy and written description of its strategy to the Working Group. During the 12 month period from the date of this order, each Federal agency, as part of its environmental justice strategy, shall identify several specific projects that can be promptly undertaken to address particular concerns identified during the development of the proposed environmental justice strategy, and a schedule for implementing those projects.

(f) Within 24 months of the date of this order, each Federal agency shall report to the Working Group on its progress in implementing its agency-wide environmental justice strategy.

(g) Federal agencies shall provide additional periodic reports to the Working Group as requested by the Working Group.

1-104. *Reports to the President.* Within 14 months of the date of this order, the Working Group shall submit to the President, through the Office of the Deputy Assistant to the President for Environmental Policy and the Office of the Assistant to the President for Domestic Policy, a report that describes the implementation of this order, and includes the final environmental justice strategies described in section 1-103(e) of this order.

Sec. 2-2. *Federal Agency Responsibilities for Federal Programs.* Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.

Sec. 3-3. *Research, Data Collection, and Analysis.*

3-301. *Human Health and Environmental Research and Analysis.* (a) Environmental human health research, whenever practicable and appropriate, shall include diverse segments of the population in epidemiological and clinical studies, including segments at high risk from environmental hazards, such as minority populations, low-income populations and workers who may be exposed to substantial environmental hazards.

(b) Environmental human health analyses, whenever practicable and appropriate, shall identify multiple and cumulative exposures.

(c) Federal agencies shall provide minority populations and low-income populations the opportunity to comment on the development and design of research strategies undertaken pursuant to this order.

3-302. *Human Health and Environmental Data Collection and Analysis.* To the extent permitted by existing law, including the Privacy Act, as amended (5 U.S.C. section 552a): (a) each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income. To the extent practical and appropriate, Federal agencies shall use this information to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations;

(b) In connection with the development and implementation of agency strategies in section 1-103 of this order, each Federal agency, whenever practicable and appropriate, shall collect, maintain and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding facilities or sites expected to have a substantial environmental, human health, or economic effect on the surrounding populations, when such facilities or sites become the subject of a substantial Federal environmental administrative or judicial action. Such information shall be made available to the public, unless prohibited by law; and

(c) Each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information on the race, national origin, income level, and other readily accessible and appropriate information for areas surrounding Federal facilities that are: (1) subject to the reporting requirements under the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. section 11001-11050 as mandated in Executive Order No. 12856; and (2) expected to have a substantial environmental, human health, or economic effect on surrounding populations. Such information shall be made available to the public, unless prohibited by law.

(d) In carrying out the responsibilities in this section, each Federal agency, whenever practicable and appropriate, shall share information and eliminate unnecessary duplication of efforts through the use of existing data systems and cooperative agreements among Federal agencies and with State, local, and tribal governments.

Sec. 4-4. *Subsistence Consumption of Fish and Wildlife.*

4-401. *Consumption Patterns.* In order to assist in identifying the need for ensuring protection of populations with differential patterns of subsistence consumption of fish and wildlife, Federal agencies, whenever practicable and appropriate, shall collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. Federal agencies shall communicate to the public the risks of those consumption patterns.

4-402. *Guidance.* Federal agencies, whenever practicable and appropriate, shall work in a coordinated manner to publish guidance reflecting the latest scientific information available concerning methods for evaluating the human health risks associated with the consumption of pollutant-bearing fish or

wildlife. Agencies shall consider such guidance in developing their policies and rules.

Sec. 5-5. *Public Participation and Access to Information.* (a) The public may submit recommendations to Federal agencies relating to the incorporation of environmental justice principles into Federal agency programs or policies. Each Federal agency shall convey such recommendations to the Working Group.

(b) Each Federal agency may, whenever practicable and appropriate, translate crucial public documents, notices, and hearings relating to human health or the environment for limited English speaking populations.

(c) Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public.

(d) The Working Group shall hold public meetings, as appropriate, for the purpose of fact-finding, receiving public comments, and conducting inquiries concerning environmental justice. The Working Group shall prepare for public review a summary of the comments and recommendations discussed at the public meetings.

Sec. 6-6. *General Provisions.*

6-601. *Responsibility for Agency Implementation.* The head of each Federal agency shall be responsible for ensuring compliance with this order. Each Federal agency shall conduct internal reviews and take such other steps as may be necessary to monitor compliance with this order.

6-602. *Executive Order No. 12250.* This Executive order is intended to supplement but not supersede Executive Order No. 12250, which requires consistent and effective implementation of various laws prohibiting discriminatory practices in programs receiving Federal financial assistance. Nothing herein shall limit the effect or mandate of Executive Order No. 12250.

6-603. *Executive Order No. 12875.* This Executive order is not intended to limit the effect or mandate of Executive Order No. 12875.

6-604. *Scope.* For purposes of this order, Federal agency means any agency on the Working Group, and such other agencies as may be designated by the President, that conducts any Federal program or activity that substantially affects human health or the environment. Independent agencies are requested to comply with the provisions of this order.

6-605. *Petitions for Exemptions.* The head of a Federal agency may petition the President for an exemption from the requirements of this order on the grounds that all or some of the petitioning agency's programs or activities should not be subject to the requirements of this order.

6-606. *Native American Programs.* Each Federal agency responsibility set forth under this order shall apply equally to Native American programs. In addition, the Department of the Interior, in coordination with the Working Group, and, after consultation with tribal leaders, shall coordinate steps to be taken pursuant to this order that address Federally-recognized Indian Tribes.

6-607. *Costs.* Unless otherwise provided by law, Federal agencies shall assume the financial costs of complying with this order.

6-608. *General.* Federal agencies shall implement this order consistent with, and to the extent permitted by, existing law.

6-609. *Judicial Review.* This order is intended only to improve the internal management of the executive branch and is not intended to, nor does it create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies, its officers, or any person. This order shall not be construed to create any right to judicial review involving the compliance or noncompliance

of the United States, its agencies, its officers, or any other person with this order.

A handwritten signature in black ink, reading "William J. Clinton". The signature is written in a cursive, flowing style with a large initial 'W'.

THE WHITE HOUSE,
February 11, 1994.

[FR Citation 59 FR 7629]