ENVIRONMENTAL JUSTICE TOOLKIT

Guidance to policymakers on incorporating social equity, cultural sensitivity, and community health considerations into air quality, climate, and energy planning.

July 2017

ENVIRONMENTAL JUSTICE TOOLKIT

Prepared by the Air and Climate Public Advisory Committee July 2017

ABOUT COG

The Metropolitan Washington Council of Governments (COG) is an independent, nonprofit association that brings area leaders together to address major regional issues in the District of Columbia, suburban Maryland, and Northern Virginia. COG's membership is comprised of 300 elected officials from 24 local governments, the Maryland and Virginia state legislatures, and U.S. Congress.

CREDITS

Lead Editors: Tamara Toles-O'Laughlin, Glenna Tinney, Gretchen Goldman, Leah Fisher Contributing Editors: KarenLynn Bell, Richard Ezike, Seth Heald, John Howes, Robin Lewis, Sarah Mazur, Dan Mooring, Natalie Pien, Ron Rodriguez, Maggie Shober, Gabriel Thoumi COG Staff Support: Steve Walz, Maia Davis, Amanda Campbell, Aaron Waters, Sophie Earll Design: Megan Goodman

ACKNOWLEDGMENTS

Current and former members of COG's Air and Climate Public Advisory Committee that have supported its environmental justice work include Rebecca Elliot, Eric Goplerud, Andrew Kambour, Sally Kane, Charles Kooshian, and Jacqueline Norris.

ACCOMMODATIONS POLICY

Alternative formats of this document are available upon request. Visit www.mwcog.org/accommodations or call (202) 962-3300 or (202) 962-3213 (TDD).

TITLE VI NONDISCRIMINATION POLICY

The Metropolitan Washington Council of Governments (COG) fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations prohibiting discrimination in all programs and activities. For more information, to file a Title VI related complaint, or to obtain information in another language, visit www.mwcog.org/nondiscrimination or call (202) 962-3300.

El Consejo de Gobiernos del Área Metropolitana de Washington (COG) cumple con el Título VI de la Ley sobre los Derechos Civiles de 1964 y otras leyes y reglamentos en todos sus programas y actividades. Para obtener más información, someter un pleito relacionado al Título VI, u obtener información en otro idioma, visite www.mwcog.org/nondiscrimination o llame al (202) 962-3300.

Copyright © 2017 by the Metropolitan Washington Council of Governments

TABLE OF CONTENTS

INTRODUCTION	3
Purpose Process Principles Definitions	3 4 5 5
APPROACHES	6
Approach #1: Identifying Potentially Vulnerable Populations Approach #2: Providing Meaningful Engagement Opportunities Approach #3: Assessing Community Impacts and Needs Approach #4: Developing Metrics Approach #5: Providing Data, Information, and Resources for Communities Approach #6: Using Citizen Science Approach #6: Using Citizen Science Approach #7: Developing Community Leadership Approach #8: Supporting Economic and Workforce Development Approach #9: Mainstreaming Environmental Justice into Public Planning and Programs	6 7 8 9 10 11 12 13 14
CONCLUSIONS	15
APPENDICES Appendix A: Resource Directories Resources for All Resources for States Resources for Local Governments Resources for Communities Appendix B: Resources on the History and Context of the Environmental Justice Movement Appendix C: Enabling Legislation and Government Activities Federal States	 16 16 16 17 17 18 19 20
REFERENCES	21

INTRODUCTION

Purpose

Environmental Justice (EJ) is a necessary part of the effort to create and maintain a clean and healthy environment. It is important that we recognize and ameliorate the obstacles to full enjoyment of the environment for those who have traditionally lived, worked, and played closest to the sources of pollution.

This Environmental Justice Toolkit (EJ Toolkit) is intended to be a resource on government measures, practices, and policies aimed at creating cooperative solutions to issues of fair and just treatment and equitable access in the development, application, and enforcement of environmental policies. It is envisioned that this toolkit will be used to expand ways that Metropolitan Washington Council of Governments (COG) members can affect meaningful engagement within communities in metropolitan Washington.

The toolkit is designed to facilitate increased dialogue and encourage proliferation of inclusive measures, where possible. The toolkit features a survey of EJ principles, approaches to building EJ capacity, resources, tools, and case studies to assist COG staff, local jurisdictions, and COG stakeholders to set the direction for inclusion of equity in all air quality, energy, and climate planning and policy decisions. The approaches in this toolkit are not exhaustive of all promising practices for EJ and approaches can be tailored or bundled to fit each community's needs. The approaches covered in this toolkit include:

- Approach #1: Identifying Potentially Vulnerable Populations
- Approach #2: Providing Meaningful Engagement Opportunities
- Approach #3: Assessing Community Impacts
- Approach #4: Developing Metrics
- Approach #5: Providing Data, Information and Resources for Communities
- Approach #6: Using Citizen Science
- Approach #7: Developing Community Leadership
- Approach #8: Supporting Economic and Workforce Development
- Approach #9: Mainstreaming EJ into Public Planning and Programs

There are many advantages of EJ. Foremost is developing healthy, sustainable, equitable communities that include healthier children, fewer school days lost due to illness and asthma, and a more productive work force. Environmental Justice also ensures inclusive and transparent environmental policies through a collaborative process to foster community buy-in and support of policies. The concept of fairness is key (Harris, 2012). This concept is reflected in the Fairfax County Board of Supervisor's *One Fairfax* Resolution. According to Fairfax County Chairman Sharon Bulova, "One Fairfax emphasizes the importance of making County-wide decisions through the lens of racial and social equity (Fairfax County, 2016)."

Process

The members of COG's Air and Climate Public Advisory Committee (ACPAC) developed the EJ Toolkit in consultation with the Metropolitan Washington Air Quality Committee (MWAQC), the Climate, Energy, and Environment Policy Committee (CEEPC), and environmental justice advocates in metropolitan Washington.

COG is an independent, nonprofit association, with a membership of 300 elected officials from 24 local governments, the Maryland and Virginia state legislatures, and U.S. Congress. Each year, the COG Board adopts a policy focus and set of legislative priorities to highlight what actions are necessary to address top challenges and achieve regional goals. In recent years, the Board has focused on workforce development, transit governance, economic competitiveness, and infrastructure as key regional priorities.

COG's work engages leaders in various environmental fields ranging from air and water quality experts to energy and sustainability managers. Together, they are advancing regional efforts to reduce air pollution, increase renewable energy use, promote recycling, restore local waterways, and enhance and preserve green space and agriculture. MWAQC and CEEPC are key in furthering the air quality, climate and energy goals for the region.

ACPAC provides advice on air quality, climate, and energy issues to MWAQC and CEEPC. ACPAC's members represent diverse community interests and opinions from communities across the Metropolitan Washington region. As a body, the membership brings varying perspectives and backgrounds to this work including public interest advocacy, education, finance, business/industry, science, and health and environmental health, among others.

This EJ Toolkit grew out of ACPAC's interest in the intersection of health, climate change, and air quality, and the disproportionate impacts on potentially vulnerable populations in metropolitan Washington. ACPAC began this project by meeting with environmental justice advocates located throughout the Metropolitan DC region to learn more about the issues, challenges for community members, and the work being done by a variety of EJ organizations.

Subsequently, ACPAC members decided to develop this EJ Toolkit to provide COG members with ready source material and background information on EJ. ACPAC members conducted research for the toolkit with the assistance and advice of COG staff and committees. Research included reviewing relevant articles, books, and government policy, legislation, and regulations identified and evaluated by individual members of ACPAC.

It is ACPAC's hope that the EJ Toolkit will be a useful resource to build capacity in metropolitan Washington, to expand existing efforts to increase knowledge of EJ and cultural awareness, and to actively engage communities of concern in environmental planning and policy decisions. The toolkit is intended to support greater awareness of the impacts decision makers have on all communities in the region. Thank you to all who contributed to the EJ Toolkit!

Principles

Environmental Justice core principles referred to in this toolkit are set in the context of inclusion of air quality, energy, and climate equity concerns in local planning and policy decisions. Inherent in these core EJ principles is the understanding that all communities are able to participate as partners in decision making, and that residents of underserved communities are included in the creation of policies, programs, and permitting processes that affect their lives. Furthermore, decision makers are highly encouraged to honor the cultural integrity of communities and take precautionary measures to minimize potential harm in the face of uncertainty. Consistent application of EJ principles can help ensure that underserved communities will not have to shoulder disproportionate negative effects.

Additional information about EJ principles and key concepts is found in the following resources:

- Seventeen Principles of Environmental Justice, First National People of Color Environmental Leadership Council, 1991
- Principles of Working Together, First National People of Color, 1991
- 10 Principles for Just Climate Change Policies in the US

Definitions

<u>Environmental Justice</u>: A concept that embraces the principle that all people and communities are entitled to equal protection under environmental law. It means fair treatment of all people — regardless of race, color, or national origin — and requires stakeholder involvement in the implementation and enforcement of environmental laws, regulations, and policies (U.S. Environmental Protection Agency, 2016).

<u>Fair Treatment:</u> A concept central to the application of EJ that affirms that no community, group, or people bear an unbalanced share of the burdens of activities that diminish the quality of natural resources or the quality of the environment. Nor should any community, group, or people otherwise be subject to disproportionate risk in citing or development of processes that affect decision making regarding natural resources or the environment. Communities, groups, or people share in the benefit of government policies.

<u>Meaningful Engagement:</u> All people with a stake in any action resulting in the use, conservation, development, or exploitation of natural resources affecting the environment are involved in the development, implementation, and enforcement of laws affecting that use, development, and/or exploitation.

<u>Vulnerable Populations</u>: Populations identified using demographic and environmental indicators including exposure to air pollution, water pollution, and waste management. Populations with a historically disproportionate exposure to environmental hazards related to race, income, and/or language access, amongst other criteria.

APPROACHES

Approach #1: Identifying Potentially Vulnerable Populations

The first step in advancing EJ is identification of potentially vulnerable populations. The populations that could be most affected (or benefit the most) by a plan, program, or project should be included in the early stages of the decision-making process. This section discusses how to identify underserved communities.

Policymakers are specifically tasked with the rigorous work of applying fair treatment in education, engagement, permitting, and siting decisions that affect underserved communities. If the community is not involved at the inception of a policy decision, then the subsequent process runs the risk of failing to achieve meaningful community involvement. This can create undue tension, distrust, and dissention on behalf of externalized communities who find that they are not adequately made aware of or involved in decisions affecting the long-term health and safety of their community. These actions occur locally in matters as routine as the issuance of permits for energy facilities or programs that sponsor the widening of highways and byways.

Local policymakers can start by mapping potentially vulnerable populations and the potential effects of a planned action. This means specifically mapping the locations of local residents and how they could be affected by environmental pollution and policies. Astute policymakers will consult community leaders and affected persons to assess the accuracy of the identified populations and their needs when making decisions that may have an effect, such as those regarding infrastructure projects or power plant construction and maintenance.

Local and regional policymakers have a myriad of resources at their disposal to accomplish the task of identifying relevant communities, including the following:

- Environmental Protection Agency (EPA) EJSCREEN. This EPA tool provides a comprehensive national dataset that combines environmental and demographic indicators to identify where areas of concern are located and where more robust analysis and subsequent engagement may be needed.
- COG Transportation Planning Board's Equity Emphasis Areas Map. This tool identifies US Census Tracts with high concentration of low-income and/or minority populations in metropolitan Washington. Adopted in March 2017, this tool will be used to analyze the regional transportation plan for disproportionately high and adverse impacts on low-income and minority populations.
- Energy Justice Network Energy Justice Map. This tool features all existing, proposed, closed, and defeated fossil energy and waste facilities. Once policymakers identify affected communities, they can work with residents of the communities to hear concerns and assess possible solutions.

Approach #2: Providing Meaningful Engagement Opportunities

The success of projects and programs serving potentially vulnerable populations relies heavily on development of accessible and meaningful engagement opportunities. Once potentially vulnerable populations are identified (see Approach #1) local policymakers are encouraged to provide meaningful engagement opportunities.

Increasingly, local policymakers recognize the value of in-depth engagement and dialogue with communities, and even require it in many instances. The Environmental Protection Agency's (EPA) Clean Power Plan, for example, requires states to demonstrate meaningful engagement with underserved communities during their compliance planning process (Small, 2016). Meaningful community engagement provides benefits for both communities and decision makers. Such engagement can foster collaborative, innovative, and integrated community solutions, build trust between local governments and communities, and strengthen the potential for future partnerships in community improvements.

Government agencies can work to enhance engagement and democratic decision making with underserved communities. Such engagement can take several forms, including but are not limited to the following key components:

- **Two-way dialogue**. Two-way dialogue and peer-to-peer learning in order to identify, understand, and discuss community concerns is essential. For example, a government community liaison could provide meaningful engagement opportunities through citizen committees, forums, and listening sessions.
- Flexibility. Government agencies are be prepared to be flexible—both in time and scope of the project—to the community's needs and does not have a set agenda. It is important to ensure that every voice is heard in the process.
- Accessibility. It is important for decision makers to ensure engagement opportunities are
 inclusive and accessible for community residents. This may require going beyond traditional
 outreach activities of posting public meeting notices and online engagement. For example,
 decision makers can consider the need for providing materials in other languages, holding
 meetings at varying times and lengthening time periods for public input, and holding
 meetings at locations accessible by public transit.

Several examples demonstrate the value of providing meaningful engagement opportunities, for both local governments and the communities they serve:

- Inbound Community Corporation: Environmental Justice
- Sustainable DC engagement and working groups
- This Baltimore 20-year-old just won a huge international award for taking out a giant trash incinerator (*The Washington Post*)
- EJ Implementation at the Maryland Department of the Environment

Several additional resources are available to assist decision makers in developing and implementing meaningful engagement opportunities:

- EPA Best Practices for Local Governments
- EPA Emerging Tools for Local Problem Solving
- EPA EJ is About Engaging with Communities on a Personal Level video series

Approach #3: Assessing Community Impacts and Needs

Communities are the core of environmental justice. It is important for local policy makers to understand cumulative and cross-cutting impacts on communities. Local governments are encouraged to engage their citizens to identify the priority impacts of concern to each community. An impact assessment is an opportunity to provide meaningful community engagement (see Approach #2) and develop a shared understanding of a community's needs.

An impact assessment is often the initial process of evaluating or estimating future outcomes of an action, usually a decision, policy, or regulation. These assessments can focus on future or proposed actions or for existing practices. Impact assessments particularly help when evaluating the effects of multi-point sources of pollutants, where impacts can be more difficult to track than in cases of a single pollutant.

Impact assessments can look broadly at social, health, environmental, ecological, and economic impacts or more specifically focus on one category, such as impacts due to climate change.

The key to a successful impact assessment includes clear definitions and boundaries. An impact assessment clearly defines the following dimensions:

- The community included in the assessment
- The types of impacts being considered in the assessment
- Time frame that the assessment covers
- Methodology and assessment assumptions

Community impacts can be both quantitative and qualitative in nature, and assessments can include both. Typically, quantification is preferred where possible to make comparisons easier, but not all impacts are easily quantifiable. Qualitative research thatcan play a part in community impact assessments include surveys, focus groups, and case studies. Surveys and focus groups need to be representative of the impacted population.

Finally, it is also important to have a strong understanding of the community's history and to build upon prior work where possible. The process used to engage communities can shape a community impact assessment in a way that is meaningful to addressing community concerns (see Approach #2 above). The following two case studies exemplify this principle:

- Baltimore Trash Incinerator
- Free Your Voice

- Guidelines and Principles of Social Impact Assessment
- EPA Conducting a Human Health Risks Assessments
- CDC Environmental Health Tracking Network
- Virginia Health Opportunity Index
- Good Guide EJ Scorecard

Approach #4: Developing Metrics

Successful planning for EJ involves thoughtful methods that measures impacts and the effectiveness of policy actions on underserved communities. Communities should be engaged to develop metrics that are meaningful to them (see Approach #2) and address how they see their community is being impacted (see Approach #3).

Local policymakers are encouraged to recognize and support holistic improvements to the quality of life of affected communities. This includes health, environment and job creation, for the affordable, low-skilled, vulnerable and low-income diverse communities. These communities most often suffer greater adverse effects from the fossil-fuel energy economy, due to their locations in highly congested areas, near power plants, highways, industrial facilities, and other polluting sources. The resulting respiratory impacts and other health ailments from these sources cause unyielding burden upon these communities and exacerbate these communities' fragile economic and social conditions.

Quality data metrics for evaluating the success of air and water quality, climate change, and energyrelated policies, initiatives and actions are valuable to decision makers and stakeholders. Using these metrics to collect, monitor, analyze, and report provides evidence-based intelligence for understanding the source of inequities and to design remedies and mitigation strategies for implementing policies with positive, sustainable environmental impacts that narrow racial and economic disparities.

Metrics should be specific, measurable, attainable, relevant and timely. (National Institute of Environmental Health Sciences, U.S. Department of Health and Human Services, 2012). Metrics can be tracked within the community to show if conditions are improving (or not) over time and to show any benefits environmental solutions are providing underserved communities. Metrics also can be tracked across communities to identify disproportionately high impacts (or benefits) in underserved versus more affluential communities. As communities consider the most appropriate metrics for their community a few questions to consider includes:

- What are the primary concerns of the affected community?
- What environmental hazards or stressors is the community being exposed to? (such as air pollution)
- What health impacts is the community facing? (such as asthma or other chronic medical conditions)
- What is the community's ability or limits to adapt to these exposures and health impacts? (such as poverty, education, access to care and services, etc.)
- What environmental solutions may reduce exposure and impacts? (Sam Harper, 2013)

- Sustainable DC Progress Indicators
- Takoma Park Sustainable Energy Action Plan
- EPA Environmental Justice Research Roadmap
- EPA EJ Best Practices for Local Governments
- EPA Emerging Tools for Local Problem Solving

Approach #5: Providing Data, Information, and Resources for Communities

Concrete and relevant information can help empower communities to make informed decisions and help local policymakers address EJ issues. Providing community members access to data and information related to a given action is important to successful implementation of EJ initiatives, or more generally any environmental program.

Local policymakers interested in EJ should consider how to collect and disseminate data and information to the community so that it increases the success of their EJ work. Local governments can make data and information available through multiple tools using both online and community-based approaches to help low- income, minority, and limited English proficiency communities access information conveniently.

Community-based approaches will depend on local needs and conditions, but in general, it involves engaging citizens where they are with existing community organizations, groups, or leaders at their meetings or otherwise at their convenience. Information hubs can be housed in public buildings, libraries, or other community facilities and complemented with outreach and engagement. Building broad partnerships in the community can provide increased access to community information and resources. For instance, forming partnerships with faith-based and cultural organizations in the communities and canvassing represent additional examples of vehicles for informing communities.

It is critical to think about any tools that may advance the project and aid community members. Different initiatives may require different solutions. A community impact assessment (see Approach #3) is one tool. Additional examples provided below help to provide a starting point in deciding which option to pursue.

- Breathe DC. As a community-based program, Breathe DC aims to safeguard the lung health of Washington area residents through various "smoke-free" initiatives. Breathe DC gathers data to inform smoke-free public housing policy in D.C., while also working to raise awareness and develop resources on the benefits of smoke-free housing policies.
- Free Your Voice. A local community coalition of residents, students, and activists that used existing local and national data to make the case that the Curtis Bay community faced disproportionately high impacts from air pollution from multiple sources. The community-based leadership provided reliable data to support their argument, which lead to the State denying a permit for a new incinerator in the community.
- New York State Department of Environmental Conservation Office of Environmental Justice. The green infrastructure (GI) program collects and provides data, information and resources on how GI can help revitalize EJ communities. The program connects a network of stakeholders with funding opportunities to facilitate GI implementation in EJ communities.

Additional resources and tools include the following:

- EPA Injecting Knowledge to Cure Injustice video
- EPA Community-Focused Exposure and Risk Screening Tool (C-FERST)
- EPA EnviroAtlas
- EPA Eco-Health Browser

Approach #6: Using Citizen Science

Citizen science is part of a growing field of public participation in scientific research. Citizen science allows community members to manage the development of accessible data relevant to environmental and human health that may not be available for their community (data that is available is discussed in Approach #5). The people living in an impacted neighborhood is ideally situated to observe and monitor pollution that would not otherwise be detected.

Communities will benefit greatly if citizen science is used to establish a positive means of communication with local governments, enabling community members to become informed advocates for their own health and to become active stakeholders in government projects (Center for Health, Environment & Justice, 2015). Government agencies can help coordinate citizen science to enhance data availability in underserved communities.

Key aspects of citizen science typically include:

- **Collaboration with scientists.** Citizen science is a collaboration between scientists and volunteers. This partnership leverages volunteers to increase scientific knowledge and volunteers benefits by developing scientific information relevant to their community. (The Cornell Lab of Ornithology, 2016a).
- Volunteer monitoring. Members of the public can be trained to support organized scientific research through asking questions, data monitoring and collection, or interpreting results (The Cornell Lab of Ornithology, 2016). This work should complement (not replace) existing scientific data.
- **Open, shared data.** Through citizen science, people contribute to and share scientific information with members of the community to help inform their engagement with government processes and programs (Ullrich, 2012). Government agencies should be transparent about how the data may (or may not) contribute to a policy or project.

In the absence of an ongoing monitoring program in a community, citizen science can play an important role to inform specific upcoming (transportation, energy, waste management, or industrial) projects that may affect their community. Local governments can leverage citizen science by engaging communities before a project begins to identify a citizen science monitoring team. Quality assurance of the data and results can be maintained when the effort is coordinated or led by a scientist, government agencies secure quality equipment, adequate training of citizen participants is provided, and care is taken not to over-rely on and place undue burden on unpaid volunteers.

Additional case studies and resources include the following:

- Interpreting Local Air Quality Data to Support Pollution Monitoring in Brandywine, Maryland
- University of Maryland's Dr. Sacoby Wilson. An environmental health scientist that collaborates with citizens and community-based organizations to develop scientific information for EJ communities.
- Southeast CARE Coalition in Newport News, Virginia
- EPA Citizen Science Air Monitoring in the Ironbound Community
- EPA Air Sensor Toolbox for Citizen Scientists
- EPA How to Start a Citizen Science Program video

Approach #7: Developing Community Leadership

Environmental Justice calls for governmental agencies and policymakers to work with community members and leaders to make culturally-relevant decisions to the community. Likewise, community members should be at the forefront of issues impacting them. In addition to providing meaningful engagement opportunities from the inception to completion of decision-making processes (see Approach #2), government agencies can provide for community leadership development to promote partnership and shared outcomes.

Community leadership development means providing technical support and educational opportunities on how to understand, engage, and influence the government decision-making processes. In addition, training can make community members aware of their rights under environmental law and teach community members how to access data, technical assistance and resources (see Approach #5).

Community leadership development creates strong advocates for the health of their community. Examples of programs that demonstrate the value of such programs to the community include:

- NeighborWorks Community Leadership Institute (CLI). CLI is an annual training opportunity that provides forums workshops, and learning labs to enhance the skills of community leaders, residents and volunteers in underserved communities. Community teams work together to develop an action plan that will facilitate positive change in their community.
- COG Transportation Planning Board Community Leadership Institute (TPB CLI). This
 educational program is a series of three workshops that encourages community leaders to
 get involved in transportation-related decision-making at all levels. Participants learn how,
 where, and when transportation decisions are made in the region at the state, regional, and
 local levels. The TPB CLI Alumni Network facilitates continued education, networking and TPB
 Ambassador opportunities.
- Arlington County Energy Master's Program. This program trains community and student volunteers in energy efficiency, water conservation, and community education skills. Volunteers dedicate 40 community service hours to make hands-on improvements in affordable housing units and educating residents, families, students, and community groups.

- EJ Best Practices for Local Governments
- EPA Emerging Tools for Local Problem Solving
- EPA You are the True Expert about Your Community video

Approach #8: Supporting Economic and Workforce Development

The clean economy produces goods or services that have an environmental benefit, such as energy efficiency, renewable energy production, clean transportation and fuels, pollution protection, environmental cleanup, etc. An equitable clean economy improves the environmental and human health of underserved communities and provides opportunities that support the economic security of underserved communities.

Equitable advancement of the clean economy can include developing an environmental science pipeline for youth, supporting green job training programs, fostering clean industries in the community, and investing in EJ communities in a way that provides economic benefit to the entire community. Each community can collaboratively decide what an equitable, clean economy looks like and shape programs to address their local needs. Several programs in metropolitan Washington work towards advancing the clean economy, such as:

Green job training:

- DC Green Zone Environmental Program. A program for youth and young adults that builds environmental knowledge, skills, and leadership experience while completing community-based environmental projects in Washington DC.
- **DC Sustainable Energy Utility.** Partners with clean energy businesses to provide job skills training, certifications, externships, and job placement assistance to local residents.

Fostering clean industries:

- Prince George's County Clean Water Partnership. A partnership between the county, several community-based organizations, and local community college to build the experience and capacity of local businesses and workforce to design, install, and maintain green infrastructure projects as well as mentorship on how to compete for stormwater contracts and subcontracts.
- Alexandria Emerging Technologies Center. The business incubator and citizen green academy support integration of emerging clean technologies to support job creation and improve quality of life.
- Bethesda Green Incubator Program. Supports metropolitan Washington start-up companies developing green products, technologies, and services.

Investing in EJ communities:

- **Prince George's County Zero Energy Initiatives.** The Redevelopment Authority is investing in zero energy home projects (including affordable housing) in underserved communities (H.A.N.D, 2015).
- Community Benefits Negotiations/Agreements. Developers, government agencies, and an
 inclusive coalition of community organizations can negotiate to bring specific benefits to the
 community when a project is proposed. Benefits could include economic and workforce
 development, social, health, environmental, or other benefits.

- NAACP Climate Justice Initiative Toolkit
- EPA EJ Best Practices for Local Governments
- EPA Emerging Tools for Local Problem Solving

Approach #9: Mainstreaming Environmental Justice into Public Planning and Programs

The goal of mainstreaming EJ is for it to become a natural part of local decision making, widening the scope and effect of policies and programming. Mainstreaming EJ is a part of overcoming historical disenfranchisement by making EJ an integral part of the decision-making process. Done correctly, it allows for inclusion of the greatest number of environmental considerations in the earliest stages of the decision-making cycle, when policy narratives are framed.

Mainstreaming occurs when environmental considerations become a fundamental part of the overall planning process rather than outliers that are not central to policy and investment decisions. Therefore, it accords environmental sustainability equal status with economic development, investment returns and other policy imperatives to ensure economic and environmental goals can be achieved together. Environmental Justice mainstreaming can help:

- Find integrated solutions that avoid development vs. environment arguments
- Support technological innovation that is informed and inspired by nature
- Support informed policy debate and formulation on big issues
- Identify potential disproportionately high adverse impacts to communities
- Structure initiatives that provide benefits to underserved communities
- Bring previously isolated communities into the larger social network

While mainstreaming is not a standardized process, some commonly accepted management practices (Dalal-Clayton & Bass, 2009) can help assimilate it into broad decision making. Those practices include the following:

- Scope the political economy and governance affecting environment and development.
- Convene a multi-stakeholder group to steer the mainstreaming process.
- Identify links between development and environment, both positive and negative.
- Map institutional roles and responsibilities for each of the links and desirable outcomes.
- Identify entry points for environmental equity mainstreaming in key decision-making processes.
- Conduct expenditure reviews and make the business case for environmental inclusion.
- Establish or use existing forums and mechanisms for debate and consensus.
- Reflect agreed changes in key mainstream policy, planning, and budget documentation.

A couple examples include:

- **Connecticut Department of Energy and Environmental Protection**. The EJ Program requires anyone building or expanding facilities in an EJ neighborhood to develop an EJ Participation Plan before applying for a permit so that affected citizens consistently have the opportunity to participate in the decision-making on projects in their community.
- **1995 Chicago heat wave**. 700 people died during this heat wave, mainly in low -income, underserved communities. This provides an example of the need to mainstream the needs of vulnerable populations into emergency response planning and to build social infrastructure in communities to insure the health and safety of its citizens (Klinenberg, 2015).

- Environmental Justice for States Guide
- Environmental justice: From the margins to the mainstream (*ClimateWire*)
- Statement by Environmental Justice Leaders on Green 2.0

CONCLUSIONS

Environmental Justice is an iterative process that can appear to be difficult at the outset, but which results in policies and decisions that are inherently more effective and sustainable in the long term. Policymakers are encouraged to embark on a collaborative process to reach ends that serve the multilayered needs of underserved communities.

The EJ Toolkit provides a myriad of approaches, tools and resources to help build the capacity of policymakers and support their citizens and communities. Identifying vulnerable populations and meaningful engagement opportunities (Approaches 1 and 2) are essential first steps to addressing EJ. Through this engagement each community can identify its shared goals and needs and will influence the specific approaches, or combination of approaches, the community and government agencies implement (Approaches 3 – 8). The ultimate goal is for EJ considerations to be mainstreamed into local planning and decision-making processes (Approach 9) as a core consideration in policy and investment decisions. This toolkit is designed to help communities on their path towards this end.

APPENDICES

Appendix A: Resource Directories

RESOURCES FOR ALL

- EPA's Environmental Justice Collaborative Problem Solving Model
- EPA's Community-based Federal EJ Resource Guide
- EPA Resources for Healthy, Sustainable, and Equitable Communities
- Grants.Gov
- DOT EJ Page
- HUD EJ Page
- HHS EJ Page
- Subscribe to EPA EJ List Serve
- EPA EJ In Action Blog
- Georgetown Climate Center Adaptation Clearinghouse
- National Equity Atlas

RESOURCES FOR STATES

- EJ for States Guide (2006 Report)
- 2015 Grist ratings of Fed EJ programs
- EPA Federal Interagency Working Group on Environmental Justice
- EJ for All: A fifty state of legislation, policy and cases
- Environmental Justice State Guidance: How to Incorporate Equity and Justice Into Your State Clean Power Planning Approach
- Environmental Justice Guidance Under the National Environmental Policy Act
- Clean Power Plan Toolkit
- ACEEE Report Building Better Energy Efficiency Programs for Low-Income Households
- NASEO Warehouse for Energy Efficiency Loans (WHEEL)
- Planning for Climate and Energy Equity in Maryland

RESOURCES FOR LOCAL GOVERNMENTS

- EJ Best Practices for Local Governments
- GRID Alternatives Low Income Solar Policy Guide
- EPA Emerging Tools for Local Problem Solving
- STAR Communities Rating System (sections on Empowerment and Equity and Measuring Environmental Justice)

RESOURCES FOR COMMUNITIES

Community Data

• Citizen Science Funding Resource Guide

Air Quality and Health Impacts

- DC Environmental Health Collaborative
- Virginia Asthma Coalition
- Asthma and Allergy Foundation Maryland Chapter
- IMPACT DC
- DC CAN DC Control Asthma Now
- Childhood Asthma Leadership Council

Climate and Energy

- Resilient DC Initiative
- Low Income Home Energy Assistance Program (LIHEAP)
- LIHEAP Clearinghouse
- Weatherization Assistance Programs
- DC Sustainable Energy Utility
- GRID Alternatives Solar Affordable Housing Program
- MD SUN Low Income Solar Solar Coop Pilot
- Hyattsville Green Homes Program
- ACE Energy Master's Program

Metropolitan Washington EJ Community-Based Organizations Resource Directory

- Children's Environmental Health Network
- Earth Justice
- Empower DC
- Energy Justice Network
- Environmental Integrity Project
- Environmental Justice Leadership Forum
- Green For All
- Green Muslims
- NAACP Environmental and Climate Justice Program
- National Environmental Justice Conference and Training Program
- Sierra Club DC Chapter Environmental Justice Supporters Group
- University of Maryland Community Engagement Environmental Justice and Health (CEEJH)
- VOCES VERDE
- Young, Black and Green

Appendix B: Resources on the History and Context of the Environmental Justice Movement

- 1982 Warren County Landfill, NC
- 1987 Commission for Racial Justice of the United Church of Christ Study, Toxic Wastes and Race
- 1991 Seventeen Principles of Environmental Justice, First National People of Color Environmental Leadership Council
- 1991 Principles of Working Together, First National People of Color
- 10 Principles for Just Climate Change Policies in the US
- 1987 2007 Commission for Racial Justice of the United Church of Christ Study Toxic Wastes and Race at Twenty
- 2010 Climate Change is a Civil Rights Issue
- 2011 The Environmental Justice Dimensions of Climate Change
- 2014 Toward Climate Justice: Perspectives on the Climate Crisis and Social Change
- 2014 Air Pollution: It's Complicated, But It's Still About Environmental Justice
- 2016 Why We Still Need to Focus on Environmental Justice
- 2016 NRDC on The Environmental Justice Movement
- NAACP on Environmental Justice and Climate Change

Appendix C: Enabling Legislation and Government Activities

FEDERAL

- 1964 Title VI of the Civil Rights Act
- EPA on Title VI and Environmental Justice
- 1968 Indian Civil Rights Act
- 1969 National Environmental Protection Act
- 1970 Uniform Act (standards for real estate acquisition and displacement)
- 1973 Rehabilitation Act
- 1975 Age Discrimination Act
- 1976 Resources Conservation and Recovery Act
- 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- 1983 General Accounting Office Report, Siting of Hazardous Waste Landfills and Their Correlation with Racial and Economic Status of Surrounding Communities
- 1986 Emergency Planning and Community Right-to-Know Act
- 1994 Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- 1993 Establishment of Environmental Justice Office and Advisory Council
- 1994 US Department of Commerce and National Oceanic and Atmospheric Administration Guidelines and Principles for Social Impact Assessments
- 1996 Memorandum on Integrating Environmental Justice into EPA Permitting Authority
- 1997 CEQ Environmental Justice Guidance Under NEPA
- 2000 Executive Order 13166 Improving Access to Services for Persons with Limited English Proficiency
- 2011 Government Accountability Office Report, Environmental Justice, EPA Needs to Take Additional Actions to Help to Insure Effective Implementation
- 2013 Federal Environmental Justice Resources Compendium (links to federal agency regulations, orders/directives, guidance, and plans)
- 2014 EPA Environmental Justice Plan: Incorporating Environmental Justice into Rulemaking
- Federal Interagency Working Group on Environmental Justice (includes links to all federal agency EJ Plans)

STATES

District of Columbia Department of Energy and Environment (DOEE)

- DOEE Office of Enforcement and Environmental Justice (OEEJ) ensures that all DC citizens receive equal protection under environmental laws and are provided meaningful opportunities to participate in environmental decision-making.
 - Code of the District of Columbia: Title 8, Chapter 1, Subchapter V Environmental Impact Statements are the main authority for protection of EJ Communities.

Maryland Department of the Environment (MDE)

- Environmental Justice Resources for communities, businesses, governments, and citizens
- Maryland State Commission on Environmental Justice and Sustainable Communities
- Cumulative Impact Workgroup: An MDE staff Environmental Justice Workgroup to review how to address cumulative community impacts. This internal work group coordinates with the CEJSC.
- History of Environmental Justice in Maryland
- Environmental Benefits Districts

Virginia Department of Environmental Quality (DEQ)

- DEQ's environmental justice work is facilitated through a National Environmental Performance Partnership Agreement (NEPPS) with the EPA.
 - Risk Based Inspection Strategy (RBIS) includes a qualifier called Environmental Sensitivity which is used to determine where and how often permitted facilities, industrial sectors, etc. are targeted for annual compliance evaluations.

REFERENCES

- Adler, M. D. (2010). Equity Metrics: How to Choose? *OECD Regulatory Policy Conference*. Paris: The Organisation for Economic Co-operation and Development (OECD). Retrieved from https://www.oecd.org/regreform/policyconference/46313129.pdf
- Capretz, N. (2011, July 18). Job Creation, Health and Environmental Justice Metrics. Comments of California Environmental Justice Alliance on 2011 IEPR: Committee Workshop on the California Clean Energy Future. CA: California Energy Commission. Retrieved from http://www.energy.ca.gov/2011_energypolicy/documents/2011-07-06_workshop/comments/California_Environmental_Justice_Alliance_2011-07-18_TN-61452.pdf
- Center for Health, Environment & Justice. (2015, September 16). New Citizen Science Resources for Environmental Justice. Retrieved from Center for Health, Environment & Justice: http://chej.org/2015/09/16/citizen-science-resources-advance-environmental-justice/
- Dalal-Clayton, B., & Bass, S. (2009). The chanllenges of environmental mainstreaming: Experience of integrating environment into development institutions and decisions. Environmental Governance No. 3. London: International Institute for Environment and Development (UK).
- Delegates to the First National People of Color Environmental Leadership Summit. (1991, October 24-27). The Principles of Environmental Justice (EJ). Washington, DC. Retrieved from https://www.nrdc.org/resources/principles-environmental-justice-ej
- Fairfax County. (2016, July 12). *Fairfax County Board of Supervisors Adopts Social Equity Resolution*. Retrieved from Fairfax County Virginia Government: http://www.fairfaxcounty.gov/news/2016/fairfax-board-adopts-social-equity-resolution.htm
- H.A.N.D. (2015, September 15). HAND Member Spotlight: An INNOVATOR Working to Reduce Prince George's County's Carbon Footprint with Green Housing: Prince George's County Development Authority . Retrieved from HAND: https://www.handhousing.org/hand-memberspotlight-an-innovator-working-to-reduce-prince-georges-countys-carbon-footprint-with-greenhousing-prince-georges-countys-redevelopment-authority/
- Harris, K. D. (2012, July 10). *Environmental Justice at the Local and Regional Level: Legal Background*. Retrieved from State of California, Department of Justice, Office of the Attorney General: https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet.pdf
- Klinenberg, E. (2015). *Heat Wave: A Social Autopsy of Disaster in Chicago (2nd ed.).* Chicago, IL: University of Chicago Press.
- Miranda, M. L., Edwards, S. E., Keating, M. H., & Paul, C. J. (2011, June). Making the Environmental Justice Grade: The Relative Burden of Air Pollution Exposure in the United States. *Int J Res Public Health*, 8(6), 1755-1771. doi:10.3390/ijerph8061755
- National Institute of Environmental Health Sciences, U.S. Department of Health and Human Services. (2012). *Partnerships for Environmental Public Health Evaluation Metrics Manual, NIH Publication No. 12-7825.* Research Triangle Park, NC: U.S. Department of Health and Human Services. Retrieved from

http://www.niehs.nih.gov/research/supported/assets/docs/a_c/complete_peph_evaluation _metrics_manual_508.pdf

- Sam Harper, E. R.-S. (2013). Using Inequiality Measures to Incoporate Environmental Justice into Regulatory Analysis. International Journal of Environmental Research and Public Health, 4040-4059.
- Small, L. (2016, February 22). *Environmental Justice in the Clean Power Plan*. Retrieved from Environmental and Energy Study Institute: http://www.eesi.org/briefings/view/022216justice
- The Cornell Lab of Ornithology. (2016). Citizen Science Central: What is Citizen Science and PPSR? Retrieved from The Cornell Lab of Ornithology: http://www.birds.cornell.edu/citscitoolkit/about/defining-citizen-science
- The Cornell Lab of Ornithology. (2016a). *Citizen Science Central: Defining Citizen Science*. Retrieved from The Cornell Lab of Ornithology: http://www.birds.cornell.edu/citscitoolkit/about/definition
- U.S. Environmental Protection Agency. (2016). *Environmental Justice*. Retrieved from U.S. Environmental Protection Agency: https://www.epa.gov/environmentaljustice
- Ullrich, C. (2012, May 16). *Encyclopedic entry: citizen science*. (A. Switzer, J. Evers, Caryl-Sue, Editors, Caryl-Sue, Producer, & National Goegraphic Society) Retrieved from National Geographic Society: http://nationalgeographic.org/encyclopedia/citizen-science/