

**Environmental Justice, before and after Executive Order 12898:
What are agencies doing, how well are they doing it, and what else can be done?**

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Abstract

This paper identifies the EJ requirements, best practices, challenges and opportunities facing federal decision-makers and practitioners today and since the issuance of the Executive Order. The paper begins with an exploration of the laws and policies that grew out of social movements and public opinions on social justice and the environment, which predate the Executive Order. The paper identifies a relative gap in the academic and applied communities after the issuance of the E.O., followed by a resurgence in the policy and research communities.

The paper explores potential drivers of this resurgence, including the simultaneous role of environmental disaster, climate change, and social movements in the United States. It asks the question, what are some stopgap measures that can be implemented to ensure consistency in federal actions when agency and research are turned elsewhere? How can the government avoid disasters and disproportionate impacts consistently, and achieve equity—not just equality—when implementing plans and projects in communities, regardless of race or income?

The author outlines recent efforts of the federal government to build a community of practice for EJ with emphasis on outreach, impacts, and mitigation. Through the lens of a land use management agency, the paper also uses creative and innovative ways in which agencies can leverage the social science to provide meaningful environmental justice efforts and analyses in their plans and projects. The author discusses ongoing efforts by the Bureau of Land Management to use social science tools and methods to implement EJ in its plans and projects.

At the heart of the paper is a message of practical optimism, which is that agencies can attain high standards of compliance with the E.O. and other, EJ-relevant policies without much effort. Thoughtful, meaningful, and consistent EJ efforts by agencies are achievable by following stopgap measures and offering interactive trainings and tools. These steps facilitate robust EJ practices in the field, help reduce disproportionate, negative impacts to EJ communities, and, most importantly, provide some consistency over time with the publics that government officials serve. The author is a Social Scientist in the Socioeconomics Program at the Bureau of Land Management, serves as the Bureau's EJ Coordinator, and is a member of the Interagency Working Group on Environmental Justice.

Introduction

Prior to the issuance of Executive Order on Environmental Justice (E.O. 12898), a large body of research had long established that racial and ethnic minorities and low-income households in the United States

tended to face higher pollution burdens than non-Hispanic whites and higher-income households.¹ That research clearly identified the relationship between human health impacts and federal decisions. To counteract a historical pattern of disproportionate impacts and burdens, such as siting undesirable facilities and other sources of pollution in areas characterized by low-income and/or minority populations, President Clinton issued E.O. 12898, laying out guidelines for federal agencies to address Environmental Justice (EJ) issues.

Environmental justice emerged from the confluence of various, historic social and environmental moments and movements. During the latter half of the 20th century, scientific research confirmed what these movements variably expressed: that the burdens carried by minority and low-income communities were statistically and geospatially consistent, pointing to a national pattern of “-isms”: racism, classism, and other forms of discrimination.

During this period, several key pieces of legislation emerged to address and provide recourse for the harmful effects of environmental pollution that disproportionately and irrefutably burdened minority and low-income populations. Title VI of the Civil Rights Act was (and remains) a crucial piece of legislation in federal spheres. Created to prevent discrimination by government agencies that receive federal funds, Title VI was used as a legal basis upon which minority populations could challenge facility siting and health effects upon communities.

Shortly after Title VI went into effect, the country experienced sweeping amendments to protect public health and welfare through regulations and improved public participation. These included the Clean Air Act (1970), the Clean Water Act (1972), and the National Environmental Policy Act (1970). NEPA required that all executive federal agencies prepare reports that state the potential environmental effects of proposed federal agency actions. Perhaps the most relevant piece of NEPA is the way in which “environmental effects” are interpreted to include human health, ecosystem health, economic effects, and social effects.

In spite of these environmental milestones, low-income and minority communities continued to disproportionately shoulder environmental burdens. The government, and particularly the federal government, was identified as vehicle for “environmental racism”. At this juncture, executive intervention was needed to position the federal government sufficiently well to address the suite of challenges associated with siting, permitting, regulation, public participation, and enforcement. Executive Order (E.O.) 12898, signed by President Clinton in 1994, married the social, civil rights, and environmental movements and brought them firmly into the federal sphere as EJ.

A review of federal policymaking for some 20 years after the issuance of the E.O. suggests that U.S. federal attention was directed elsewhere. This trend is also reflected in the academic literature. The connections between race, income, and the environment obviously existed, but were not clearly defined

¹ James K. Boyce, Klara Zwickl, and Michael Ash. Three Measures of Environmental Inequality. Institute for New Economic Thinking, Working Group on the Political Economy of Distribution Working Paper No. 4, May 2014.

as nor consistently linked to the conceptual framework of EJ.² In 2009, research was published after conducting a keyword search for EJ as a research theme in peer-reviewed articles from three major scientific databases. Among their findings, the authors found that the “conceptual and empirical focus of environmental justice has expanded only marginally and that the disconnection between theory and practice threatens to persist”³

What, if anything, is predictive about these pendulum shifts toward and away from EJ as a conceptual framework and a federal policy priority? Are there specific steps that can harness the strength of social movements to effect change consistently over time, on the ground, regardless of these shifts? Finally, what can the government do to maintain some consistency in its treatment of minority and low-income populations, regardless of executive priorities and social action?

Federal implementation of E.O. 12898: From the (Bill) Clinton administration to the Obama administration

The Executive Order on Environmental Justice set forward by the Clinton administration directed each Federal agency to develop an EJ strategy that, at a minimum, (1) promoted enforcement of all health and environmental statutes in areas with minority populations and low-income populations; (2) ensured greater public participation by minority and low income communities; (3) improved research and data collection relating to the health of and environment of minority populations and low-income populations; and (4) identified differential patterns of consumption of natural resources among minority populations and low-income populations.

Since the issuance of the Executive Order, federal agencies have, to varying degrees, followed the E.O. They have issued guidelines, worked to incorporate EJ measures into their policies, and followed up on said metrics in their annual reports. They have variably assigned the required EJ coordinators as points of contact for the public. All told, the agencies have attempted to ensure compliance, although institutional knowledge about the E.O. has waxed and waned between administrations and social and environmental disasters that have affected communities across the country. Two instances, outlined below as case studies, highlight the ways in which the effects of environmental disasters remain disproportionately skewed toward EJ populations.

Case Studies: Porter Ranch, California and Flint, Michigan

Below, two case studies appear in text boxes: Flint, MI and Porter Ranch, California. Each describes distinct disasters that occurred in a community--one affluent, one poor and predominately Black. Both qualify as avoidable disasters caused at least in part by infrastructural neglect by industry and city, state, and federal government. In the case of Flint, the effects of the disaster were multiplied by government inaction and were due, in part, to the federal government’s failure to provide government oversight.

² Maureen G. Reed and Colleen George. Where in the World is Environmental Justice? *Progress in Human Geography* 35(6):835-842.

³ Reed and George, p. 838.

There are more than a few differences between the incidents in Porter Ranch and Flint, Michigan, so a one-to-one comparison may not be entirely fair —different pollutants, different health effects, and different paths to restitution. But there are also similarities. Both incidents occurred within a few months of each other. Both involved aging infrastructure that had fallen into neglect as a result of government and industry negligence. Opportunities were missed in both cases to conduct regular safety inspections and fix issues. Both involved administrative challenges, including the challenge of working across jurisdictions. However, what is perhaps most striking is the obvious difference in demographics between each community. Porter Ranch is an affluent neighborhood south of Los Angeles, California.⁴ The majority of its 30,571 residents are White (~61 percent). Less than 2 percent of its population is Black. By contrast, Flint is a majority-minority community. Nearly 60% of the city’s population of 102,400 is African American.⁵ Nearly 42% of Flint residents live below the poverty line, and some 14% are without health insurance.⁶

[Box 1: Flint, MI]

Flint, Michigan

In April of 2014, a \$15 million cost-saving measure led to the poisoning of 102,000 people in Flint, Michigan. On April 25, the city switched its water source from Lake Huron—also used by the city of Detroit-- to the local Flint River.

The Flint River is famous for being polluted with sewage and chemical runoff from the General Motors plant on its banks. Upon switching water, residents began complaining that the smell, taste, and appearance of the water were bad. Children began experiencing rashes, nausea, headaches, and malaise. Lead exposure can cause irreversible damage to children’s brains and nervous systems, particularly younger children under six. Growth, behavior, and may be affected in children who have been exposed to low levels of lead. Learning disabilities, attention and fine motor skills, and violent behaviors are among the symptoms correlated with lead exposure.

In October 2014, General Motors announced that it would stop using the corrosive Flint water in its machines, because the city began to add chlorine in an attempt to eliminate contaminants found in the drinking water distribution system, including an E. coli outbreak two months earlier.⁷ Even after being found in violation of the Safe Water Drinking Act, the Mayor of Flint stated in a press conference, “The water is safe to drink”. However, water test results began to conclusively show otherwise: tests in people’s homes revealed lead levels as high as 104 parts per billion—in far excess of the 15 parts per

⁴ Median household income was estimated at \$121,428 in 2008 (Mapping L.A., “Porter Ranch”. <http://maps.latimes.com/neighborhoods/neighborhood/porter-ranch/> last accessed 8/1/2016).

⁵ U.S. Census Bureau, QuickFacts. “Flint city, Michigan”. <http://www.census.gov/quickfacts/table/PST045215/2629000>, last accessed 8/1/2016.

⁶ American Community Survey, 2014.

⁷ CNN, “Flint, Michigan: Did race and poverty factor into water crisis?” by Michael Martinez, 1/28/2016. Last accessed 8/1/2016.

billion, federal limit for lead in drinking water. The state Emergency Manager Darnell Early reiterated that the city would not shift back to the water supply, citing costs.⁸

Individuals in Michigan’s Department of Environmental Quality had failed to add an anti-corrosive agent to the water supply, and then attempted to cover up their error. Officials on all sides denied responsibility in the crisis. EPA Administrator Gina McCarthy blamed the State for causing the disaster, and the State blamed the EPA for its shortcomings as an overseeing body.⁹ Even though a July 2015 email from Michigan Governor Rick Snyder’s then- Chief of Staff reported lead in the drinking water in an email to a public health official, it took Governor Snyder a year to acknowledge the State’s role in the crisis.

The ongoing investigation of city and state officials is little satisfaction for residents, who will continue to experience the crisis in the form of long-term health effects and the trauma associated with their ordeal. Michigan Attorney General Bill Schuette has thus far charged nine officials with crimes in the Flint water crisis. In her testimony on the crisis in March 2016, EPA Administrator Gina McCarthy acknowledged Flint as an EJ community that had been poorly served:

While the contours of this situation are unique, the underlying contours of the situation that allowed it to happen are really not. As a country we have a systemic problem of underinvesting in EJ communities. And make no mistake about it: this is an EJ community. Not only are these underserved populations more vulnerable to impacts of pollution, but they often lack the tools and the resources and the voice to do something about it. That’s what stacks the deck against a city like Flint. That’s what creates an environment where a crisis like this can happen.

EPA regional administrator Susan Hedman resigned a day after the Governor released several emails declining to share a forthcoming report with then-Flint Mayor Dayne Walling. As of July 2016, six additional state officials were charged with crimes in the Flint water crisis, bringing the total to nine.

Flint is a classic environmental justice community with a majority black, low-income population. In spite of residents’ repeated, across-the-board assertions and evidence that something in the water was making them sick, Flint was ignored until its residents clearly displayed the symptoms of lead poisoning symptoms that could be confirmed by blood samples—and even then, denial continued.

In Flint, community members reported their maladies long before the government and water utility company admitted wrongdoing—indeed, city, state, and federal agencies denied and then eschewed responsibility until blood tests were repeated and inconclusively pointed to lead poisoning, the effects of which its residents, and particularly its children, will experience for the rest of their lives.

[Box 2: Porter Ranch, CA]

⁸ Michigan Radio, “Timeline: Here’s How the Flint Water Crisis Unfolded”, by Brush et al., Dec. 21, 2015. Last accessed 8/1/2016 at <http://michiganradio.org/post/timeline-heres-how-flint-water-crisis-unfolded>

⁹ United States House Committee on Oversight and Government Reform, “Examining Federal Administration of the Safe Drinking Water Act in Flint, Michigan”. March 17, 2016.

Porter Ranch, CA

Beginning October 2015, the community of Porter Ranch, California experienced several months of methane exposure due to a rupture in a massive natural gas storage reservoir known as the Aliso Canyon Storage Facility. The Aliso Canyon Storage Facility is an enormous natural gas storage site, holding some 85 billion cubic feet of natural gas 8,500 feet below ground. The leak spewed 62 million cubic feet of methane into the atmosphere each day for until it was successfully plugged on February 11, 2016.

Methane is a potent greenhouse gas. For several decades after it is released, it carries 84 times the warming power of carbon dioxide. Data collected on site estimates some 97,000 metric tons of methane were released through leaking wells. It is considered the worst natural gas leak in history. But what were the impacts of the leaks on residents of the Porter Ranch community?

SoCalGas employees both discovered and reported the leak to government officials and the public within 5 days. The health effects of the leak and its remediation were localized, and presumably are not associated with long-term health consequences¹⁰--although arguably the methane emissions associated with such an event harm the global good. Residents complained of nausea, headaches, and severe nosebleeds. Attempts to plug the leaking wells with a "proprietary" blend of heavy mud and fluid failed due to high gas pressure. The pressure blew the remedial mixture out and coated the community with an oily, black residue. Within months, relocation and remediation expenses were covered for thousands of families at a cost of \$2 million/ day. A Community Resource Center was established, and SoCalGas created a website dedicated to the Aliso Canyon leak repair and remediation process, including how to seek reimbursement for expenses associated with relocation.¹¹

In Porter Ranch, the county Department of Public Health ordered SoCalGas to cover relocation expenses and home cleanings for thousands of families and two schools. The leak was stopped on February 23, 2016. There was some denial, lack of accountability, and admission of wrongdoing, but the effects on Flint's people far overshadow those on the Porter Ranch community.

In spite of occurring in an unincorporated part of Los Angeles County in which responsibility could easily be eschewed, officials from city, state, and federal government quickly intervened in Porter Ranch. In reference to the upcoming election year, the New York Times Magazine called the leak "a candidate's dream" (March 2016). Authorities responded, acknowledged, resolved, and mitigated more slowly in Flint than in Porter Ranch.

What could have been done differently? Truthfully, keeping up with an aging and often underinvested infrastructure is critical. But even if Flint's water infrastructure had a modicum of updates, its residents would have likely experienced disproportionate effects because the relationship between the State and federal governments was riddled with problems and several individuals were corrupt. But community response was swift and effective in Porter Ranch, residents had the finances to self-evacuate, and likely

¹⁰ County of Los Angeles, Public Health, "Aliso Canyon Gas Leak: Public Health Assessment", <http://publichealth.lacounty.gov/media/docs/PublicHealthAssessment.pdf>, last accessed 8/1/2016.

¹¹ Southern California Gas, "Aliso Canyon Updates." <https://www.alisoupdates.com/main>. Last accessed 8/1/2016.

had the experience of collectively seeking legal retribution for the harm caused to them. The combination of these factors places them at tremendous advantage compared to the residents of Flint.

The Interagency Working Group, climate change, and minority movement

The work that is appearing in mainstream media and somewhat obscure agency documents share the themes of justice and the environment in common. Some twenty years after the issuance of E.O. 12898, the Obama administration directed federal agencies to reinvigorate their EJ efforts through the Interagency Working Group on Environmental Justice, a group of 17 Federal agencies and White House offices with standing committees, co-chaired by the White House's Council on Environmental Quality (CEQ) and the U.S. Environmental Protection Agency (EPA) Administrator. One of the committees uses NEPA reviews as a springboard for efficient yet meaningful EJ practices.

Together, ten departments, three agencies, and one White House office spent two years researching, analyzing, and discussing the interaction of EJ and NEPA. They produced a report of best practices and a national training product to implement robust and thoughtful EJ efforts.¹² Most importantly, the practices outlined in the report form part of existing NEPA requirements: it provides flexible approaches and options for agencies as they consider environmental justice in NEPA activities, but does not establish new requirements for NEPA analysis. This report is helping agencies incorporate EJ into their work without requiring new guidelines or additional steps or actions in their analyses or documents. It has the potential to infuse EJ into all plans and projects.

EJ is also gaining popularity as part of the climate change research and global policy agenda. Climate change is a more expansive issue with effects experienced by a global good; however, the world's most vulnerable communities—among them EJ populations, the elderly, and urban and coastal communities—are disproportionately impacted. Vulnerability is a core idea of EJ and climate change; it follows that EJ communities are being and will continue to be impacted disproportionately through various impact pathways including heat islands, floods, and power surges associated with climate change. Just four days prior to the submission of this paper, the White House issued guidance on climate change that mentions and instructs on EJ multiple times, and directs agencies to the Interagency Working Group on Environmental Justice:¹³

Agencies should be aware of the ongoing efforts to address the impacts of climate change on human health and vulnerable communities. Certain groups, including children, the elderly, and the poor, are more vulnerable to climate-related health effects, and may face barriers to engaging on issues that disproportionately affect them. CEQ recommends that agencies

¹² Interagency Working Group on Environmental Justice, NEPA Committee. Promising Practices for EJ Methodologies in NEPA Reviews. March 2016. https://www.epa.gov/sites/production/files/2016-07/documents/promising_practices_for_ej_methodologies_in_nepa_reviews_.pdf Last accessed 8/1/2016.

¹³ The White House Council on Environmental Quality (CEQ). Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, Memorandum for Heads of Federal Departments and Agencies. August 1, 2016. https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf Last accessed 8/5/2016.

periodically engage their environmental justice experts, and the Federal Interagency Working Group on Environmental Justice, to identify approaches to avoid or minimize impacts that may have disproportionately high and adverse human health or environmental effects on minority and low-income populations (p. 30-31).

On the ground, justice has become a central tenet of the prominent Black Lives Matter movement that was created in response to system failure of the legal system. Although there are countless examples before him, the movement was born out of tragedy when a young Black child, Trayvon Martin, was shot at close range in 2012. This incident led to significant, national dialogue on racial inequality and discrimination in the U.S. legal system. Subsequent incidents between law enforcement personnel and minority individuals highlight the movement's timely pursuit of justice and reform.

Conclusion

Since the issuance of the E.O., the federal government experienced a lull in EJ efforts. This lull is also echoed in the academic literature. In some ways, the social movements, environmental disasters, and policy opportunities facing the United States at this very moment echo those that gave rise to the E.O.

During the Democratic National Convention, Hillary Clinton and Bernie Sanders used the term Environmental Justice directly. Although critiqued by some for overlooking minority communities, Clinton's campaign includes a combined environmental and climate justice plan that directly discusses EJ populations, the environment, and impacts.¹⁴

*Clean air and clean water aren't luxuries—they are basic rights of all Americans. No one in our country should be exposed to toxic chemicals or hazardous wastes simply because of where they live, their income, or their race. And the impacts of climate change must be addressed with an eye to climate justice, so no community gets left out or left behind.*¹⁵

The Obama administration's reinvigoration of EJ, climate change, and the Black Lives Matter movement, along with parallel dialogue about race, class, and inequality in the U.S. are among the most salient examples of the movements and policy actions of late. These occurrences mark a unique moment in US history when the central tenets of social movements-- be they about the environment, health, or racial inequality—have the potential to combine and achieve policy support. In moments such as these, the government is positioned to listen and act accordingly.

¹⁴ <http://grist.org/justice/clintons-new-environmental-justice-plan-is-missing-something-people-of-color/>

¹⁵ Hillary Clinton's Plan to Fight for Environmental and Climate Justice.

<https://www.hillaryclinton.com/briefing/factsheets/2016/04/13/hillary-clintons-plan-to-fight-for-environmental-and-climate-justice/> Last accessed 8/5/2016.