

# The EPA Needs to Further Refine and Implement Guidance to Address Cumulative Impacts and Disproportionate Health Effects Across Environmental Programs

August 22, 2023 | Report No. 23-P-0029



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## Abbreviations

EPA	U.S. Environmental Protection Agency
OEJECR	Office of Environmental Justice and External Civil Rights
OIG	Office of Inspector General
RCRA	Resource Conservation and Recovery Act

## Cover Image

A residential neighborhood next to an industrial site emitting pollution. (EPA image)

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# At a Glance

## The EPA Needs to Further Refine and Implement Guidance to Address Cumulative Impacts and Disproportionate Health Effects Across Environmental Programs

### Why We Did This Audit

#### To accomplish this objective:

The U.S. Environmental Protection Agency Office of Inspector General conducted this audit to determine what actions the EPA has taken to identify and address any disproportionate health effects to disadvantaged communities located on or near the 35th Avenue Superfund site in North Birmingham, Alabama. We also sought to analyze how different EPA programs coordinate regarding site permitting and cleanup.

The communities surrounding the 35th Avenue Superfund site, located in EPA Region 4, face multiple types of pollution in their air, land, and water. Collectively, Executive Orders 12898, 13985, and 14008 direct federal agencies to make environmental justice part of their mission by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related, or other cumulative impacts on disadvantaged communities. As of March 2023, the EPA had spent an estimated \$46 million to clean up the 35th Avenue Superfund site.

#### To support these EPA mission-related efforts:

- *Compliance with the law.*
- *Operating efficiently and effectively.*

#### To address a top EPA [management challenge](#):

- *Integrating and leading environmental justice, including communicating risks.*

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### What We Found

While an EPA Region 4 initiative examined air, water, and waste issues in North Birmingham communities from 2012 through 2016, we found that Region 4 programs generally took a siloed approach in considering cumulative impacts at the 35th Avenue Superfund site—meaning they looked primarily at cumulative impacts within individual programs rather than across programs. The underlying cause of this siloed approach was the lack of both statutory mandates and agencywide policies and guidance for considering cumulative impacts and disproportionate health effects across programs. However, Executive Orders 13985 and 14008, issued in 2021, make considering cumulative impacts and associated disproportionate health effects across programs essential to advancing environmental justice.

The EPA took several actions since we began our audit—including developing guidance and plans—to further address environmental justice and better consider cumulative impacts in its decision-making. However, the guidance and plans do not explicitly state how programs should coordinate with one another to address cumulative impacts. Furthermore, the EPA has not established performance measures related to identifying and addressing cumulative impacts and disproportionate health effects across programs. Developing and implementing policies, guidance, and performance measures regarding cross-program coordination will allow the EPA to consistently identify and address disproportionate health effects, which is critical to advancing environmental and public health outcomes in all communities.

**Without policies, guidance, and performance measures, EPA programs may not be addressing cumulative impacts and disproportionate health effects on overburdened communities. Such policies, guidance, and performance measures are critical to advancing the EPA's environmental justice and equity goals.**

### Recommendations and Planned Agency Corrective Actions

We recommend that the EPA develop and implement policies and guidance to increase and improve coordination between EPA programs to assess and address cumulative impacts and disproportionate health effects. We also recommend that the EPA develop and implement performance measures to monitor progress. The Agency agreed with our recommendations and provided acceptable proposed corrective actions and estimated completion dates. All recommendations are resolved with corrective actions pending.



**OFFICE OF INSPECTOR GENERAL**  
U.S. ENVIRONMENTAL PROTECTION AGENCY

August 22, 2023

**MEMORANDUM**

**SUBJECT:** The EPA Needs to Further Refine and Implement Guidance to Address Cumulative Impacts and Disproportionate Health Effects Across Environmental Programs  
Report No. 23-P-0029

**FROM:** Sean W. O'Donnell, Inspector General

A handwritten signature in blue ink that reads "Sean W O'Donnell".

**TO:** Theresa Segovia, Principal Deputy Assistant Administrator  
Office of Environmental Justice and External Civil Rights

This is our report on the subject audit conducted by the U.S. Environmental Protection Agency Office of Inspector General. The project number for this audit was [OA-FY21-0279](#). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

The Office of Environmental Justice and External Civil Rights is responsible for the issues discussed in this report, which contains two recommendations.

In accordance with EPA Manual 2750, your office provided acceptable planned corrective actions and estimated milestone dates for Recommendations 1 and 2. These recommendations are resolved. A final response pertaining to these recommendations is not required; however, if you submit a response, it will be posted on the OIG's website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your response contains such data, you should identify the data for redaction or removal along with corresponding justification.

We will post this report to our website at [www.epa.gov/oig](http://www.epa.gov/oig).

# Table of Contents

## Chapters

<b>1</b>	<b>Introduction</b>	<b>1</b>
	Purpose	1
	Background	1
	The Superfund Program and the 35th Avenue Superfund Site	3
	Responsible Offices	4
	Scope and Methodology	5
	Prior Reports	7
<b>2</b>	<b>The EPA Lacks Agencywide Policies and Guidance to Address Cumulative Impacts and Disproportionate Health Effects Across Programs</b>	<b>9</b>
	The EPA Is Required to Achieve Environmental Justice and Address Cumulative Impacts and Disproportionate Health Effects	9
	Region 4 Considered Cumulative Impacts Primarily Within Individual Programs Rather than Across Programs	10
	The EPA Lacks Policies, Guidance, and Performance Measures Related to Cross-Program Cumulative Impacts or Disproportionate Health Effects	11
	Recent Agency Actions Address Cumulative Impacts but Do Not Explicitly Address How the EPA Will Work Across Different Programs	13
	Not Identifying Cumulative Impacts Across Programs Limits the EPA’s Ability to Determine Disproportionate Health Effects	15
	Conclusions	15
	Recommendations	16
	Agency Response and OIG Assessment	16
<b>3</b>	<b>Status of Recommendations</b>	<b>18</b>

## Appendixes

A	Documents Reviewed by the OIG	19
B	Agency Response to Draft Report	20
C	Distribution	28

# Chapter 1

## Introduction

### Purpose

The U.S. Environmental Protection Agency Office of Inspector General [initiated](#) this audit to determine what actions the EPA has taken—in accordance with its mission, its program goals, and applicable executive orders—to identify and address any disproportionate health effects to disadvantaged communities located on or near the 35th Avenue Superfund site in Birmingham, Alabama.

#### Top management challenge addressed

This audit addresses the following top management challenge for the Agency, as identified in the OIG’s *U.S. Environmental Protection Agency Fiscal Year 2023 Top Management Challenges [report](#)*, issued October 28, 2022:

- Integrating and leading environmental justice, including communicating risks.

### Background

#### Executive Orders Addressing Environmental Justice

In January 2021, President Joseph R. Biden Jr. signed Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, and Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities through the Federal Government*. These two executive orders continue the aims of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which President William J. Clinton issued in February 1994.

These executive orders direct federal agencies to make environmental justice part of their mission by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related, or other cumulative impacts on disadvantaged communities. The EPA defines “environmental justice” as the fair treatment and meaningful involvement of all people regardless of race, color, culture, national origin, income, and educational levels with respect to the development, implementation, and enforcement of protective environmental laws, regulations, and policies.

#### Three executive orders require agencies to make environmental justice part of their mission:

**12898**  
issued 1994  
*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

**13985**  
issued 2021  
*Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*

**14008**  
issued 2021  
*Tackling the Climate Crisis at Home and Abroad*

## **Federal Laws Addressing Performance Measures**

The Government Performance and Results Act of 1993 and the GPRA Modernization Act of 2010 were enacted to provide for the establishment of strategic planning and performance measurement in the federal government. These Acts require the establishment of performance indicators, also referred to as performance measures, to be used to assess overall progress toward performance goals.

## **EPA Emphasis on Environmental Justice**

In response to the increasing emphases from the executive orders on environmental justice as a federal priority, the EPA has issued several related reports and plans. The *Fiscal Year 2022–2026 EPA Strategic Plan* communicates the Agency’s priorities and provides the roadmap for the EPA to achieve its mission to protect human health and the environment. One of the principles included in the strategic plan is to “advance justice and equity.” Further, the EPA’s April 2022 *E.O. 13985 Equity Action Plan* identifies six priority actions that align with the *Fiscal Year 2022–2026 EPA Strategic Plan*. These six priority actions form a foundation on which to build meaningful engagement with underserved communities; achieve more equitable and just outcomes, including pollution reductions in communities with environmental justice concerns; and deliver other tangible benefits to underserved communities, consistent with applicable legal authorities. According to the *E.O. 13985 Equity Action Plan*, environmental justice leaders and Agency staff have identified addressing cumulative impacts as critical to achieving equitable and just outcomes across EPA programs in permitting, compliance monitoring and enforcement, cleanup, rulemaking, and other contexts.

In addition, the *EPA Annual Environmental Justice Progress Report FY 2020* states, “One objective of the EJ [Environmental Justice] Program is to advance the integration of EJ principles throughout EPA to support the efforts of communities with EJ concerns. The ultimate goal is to achieve real, concrete improvements in environmental and public health outcomes in communities with EJ concerns.”

To further help EPA decision-makers understand their authorities to consider and address environmental justice and equity in decision-making, the EPA’s Office of General Counsel published *EPA Legal Tools to Advance Environmental Justice* in May 2022 and updated it in January 2023. This document identifies a wide range of legal authorities that are consistent with the statutes the EPA administers and that the EPA can deploy to ensure its programs and activities protect the health and environment of all communities. It is intended to help the EPA, together with its state, tribal, and local partners, achieve the shared goal of protecting the health and environment of all persons across the United States.

In September 2022, the EPA issued a report titled *Cumulative Impacts Research: Recommendations for EPA’s Office of Research and Development*, which defines key terms, identifies research gaps and barriers to implementing cumulative-impact research at the EPA, and issues recommendations to advance cumulative-impact research. The report emphasizes the EPA’s priority to promote the use of cumulative impacts assessment across the Agency to align with recommendations from the National Environmental Justice Advisory Council and the White House Environmental Justice Advisory Council. These councils have urged increased attention to the cumulative impacts of multiple chemical and

nonchemical stressors on disadvantaged communities. Without identifying the cumulative impacts of multiple sources of contamination found in various media—in other words, in the soil, water, and air—for any given community, the EPA cannot fully identify where disproportionate health effects exist.

Key terms	EPA administrator remarks
<p><b>Cumulative impacts</b> are the totality of exposures to combinations of chemical and nonchemical stressors and their effects on health, well-being, and quality of life outcomes.</p> <p><b>Disproportionate effects</b> are where there are significantly higher and more adverse health and environmental effects on minority populations, low-income populations, or indigenous people.</p> <p><b>Stressors</b> are any physical, chemical, social, or biological entities that can induce a change, either positive or negative, in health, well-being, and quality of life.</p> <p><b>Disadvantaged communities</b> are those that are marginalized and overburdened by pollution.</p>	<p>“Administrator Michael Regan says he is continuing to work to bolster EPA’s authority to address the cumulative impacts of pollution releases, a step advocates say is needed to limit harms to overburdened communities, including by asking agency lawyers to determine whether the agency can interpret regulations ‘in a different way’ in order to do so.”</p> <p>—InsideEPA.com, “Regan Continues to Weigh EPA Authority to Consider Cumulative Impacts,” July 14, 2021</p>

## The Superfund Program and the 35th Avenue Superfund Site

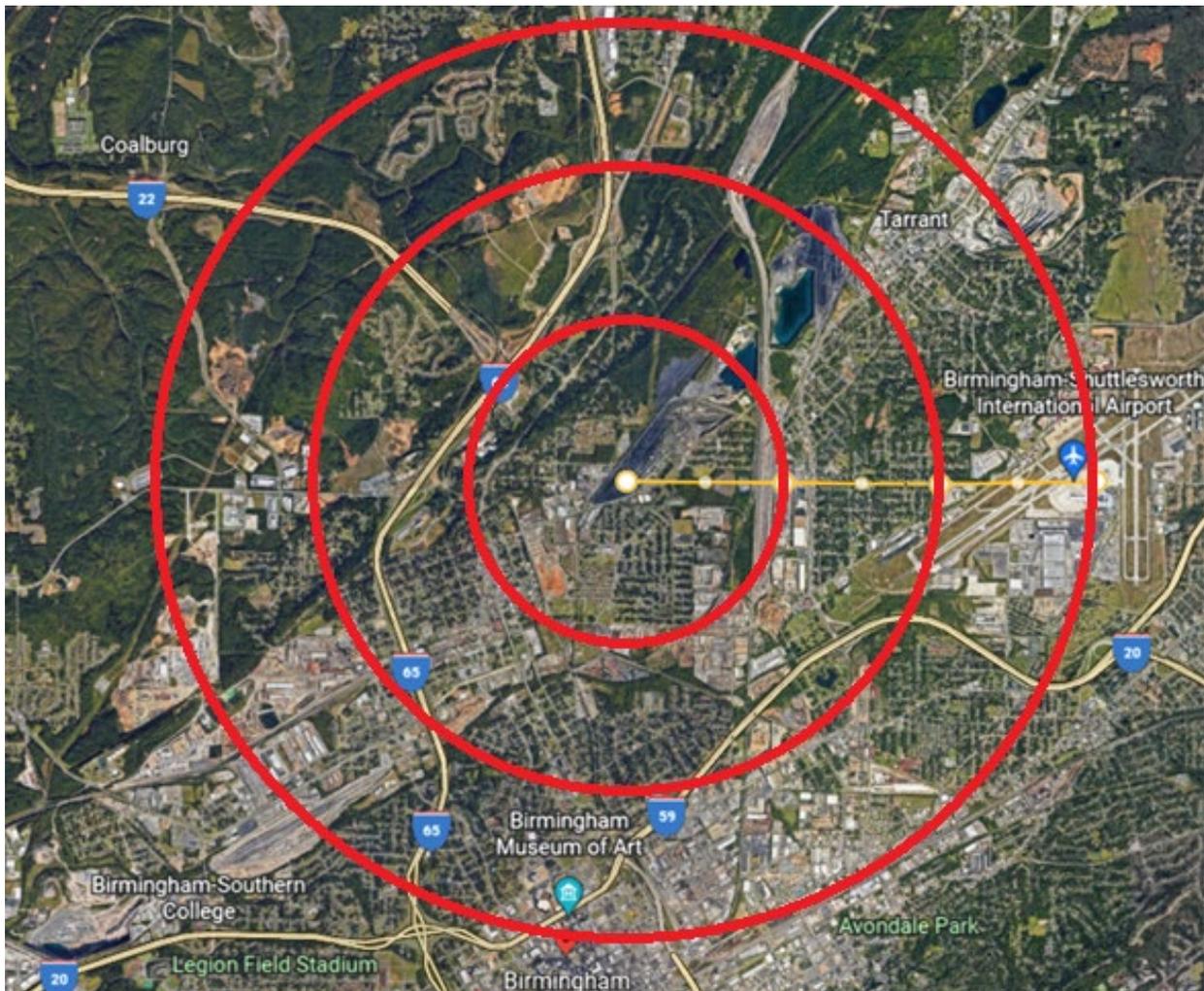
The EPA's Superfund program is responsible for cleaning up some of the nation’s most contaminated land and responding to environmental emergencies, oil spills, and natural disasters.<sup>1</sup>

The 35th Avenue Superfund site in North Birmingham, Alabama, which is located in EPA Region 4, includes multiple industrial facilities and sources of pollution on or near the site, as shown in Figure 1. The communities surrounding the 35th Avenue Superfund site deal with multiple types of pollution in their air, land, and water, including lead; arsenic; and benzo(a) pyrene, which is part of the group of chemicals called polycyclic aromatic hydrocarbons, commonly known as PAHs. The 35th Avenue Superfund site includes parts of the Collegeville, Fairmont, and Harriman Park neighborhoods and the Five-Mile and Harriman Park Creeks. As of March 2023, the EPA had spent an estimated \$46 million to clean up this site.

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<sup>1</sup> Congress established the Comprehensive Environmental Response, Compensation, and Liability Act in 1980. This Act is informally called “Superfund.”

**Figure 1: The 35th Avenue Superfund site**



*Note:* Each red ring shows a one-mile radius, with the 35th Avenue Superfund site in the center. For this audit, we examined a subset of pollution sources within a three-mile radius.

Source: OIG enhancement of map showing the 35th Avenue Superfund site. (Google Earth)

## Responsible Offices

Region 4 divisions are responsible for cleanups at communities on or near the 35th Avenue Superfund site and for implementation of any agencywide policies and guidance on cumulative impacts and disproportionate health effects. The following are the Region 4 divisions involved:

- The Air and Radiation Division implements the regulatory programs of the Clean Air Act and related authorities to achieve and maintain clean outdoor air, as well as to reduce exposures and risks associated with air pollutants.
- The Land, Chemicals and Redevelopment Division implements the solid and hazardous waste, sustainable material management, brownfields, redevelopment, sustainability, pollution prevention, underground storage tanks, and chemical safety programs through

oversight and assistance to states and tribes to promote sustainable environmental results. This division also implements the Resource Conservation and Recovery Act, or RCRA.

- The Superfund and Emergency Management Division implements the federal government’s principal program for identifying, investigating, and cleaning up contaminated sites and protecting public health and the environment from releases of hazardous substances.
- The Water Division implements the Clean Water Act and the Safe Drinking Water Act and develops and approves programs to protect public health and natural resources through source water protection, aging infrastructure improvements, water reuse, and nutrient reduction.

The Office of Environmental Justice and External Civil Rights, or OEJECR, supports the Agency’s mission by providing leadership on the EPA’s environmental justice and external civil rights priorities. The office coordinates implementation of those priorities across the Agency’s national programs and regions; the Office of the Administrator; and partnerships with other federal agencies and coregulators in state, tribal, and local governments and communities. Within the OEJECR, the Office of Policy, Partnerships and Program Development works with the EPA’s national programs and regional offices to integrate equity, environmental justice, and civil rights into their decision-making related to rules, permits, cleanups, and other core activities, as allowed by law.

## Scope and Methodology

We conducted our work from September 2021 to February 2023. We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

We assessed the internal controls necessary to satisfy our audit objective.<sup>2</sup> In particular, we assessed the internal control components—as outlined in the U.S. Government Accountability Office’s *Standards for Internal Control in the Federal Government*—significant to our audit objective. Any internal control deficiencies we found are discussed in this report. Because our audit was limited to the internal control components deemed significant to our audit objective, it may not have disclosed all internal control deficiencies.

In addition to the qualities of the 35th Avenue Superfund site described above, we selected this site for our audit because of the overlap between the 35th Avenue Superfund site and the nearby U.S. Department of Housing and Urban Development housing development, which highlights the environmental justice concerns of government-subsidized housing surrounded by pollution.

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<sup>2</sup> An entity designs, implements, and operates internal controls to achieve its objectives related to operations, reporting, and compliance. The U.S. Government Accountability Office sets internal control standards for federal entities in GAO-14-704G, *Standards for Internal Control in the Federal Government*, issued September 10, 2014. These standards are the foundation for establishing and maintaining internal control, as well as for identifying and addressing significant management challenges and areas at the greatest risk for fraud, waste, abuse, and mismanagement.

The Department of Housing and Urban Development administers federal aid to local housing agencies that manage housing for low-income residents at rents they can afford. We also selected this site because of the multiple industrial facilities that surround the site and the multiple types of pollution in the surrounding area's air, land, and water.

We sought to identify how different EPA programs, including the Superfund, RCRA, Air, and Water programs, coordinated with each other regarding cumulative impacts in permitting, cleanup, and other key decisions. To determine whether the EPA identified and addressed any disproportionate health effects to disadvantaged communities located on or near the 35th Avenue Superfund site, we examined a subset of pollution sources within a three-mile radius.<sup>3</sup> We identified the extent to which the EPA Superfund, RCRA, Air, Water, and Environmental Justice programs are communicating with each other regarding permitting, cleanup, and other key decisions. We reviewed a sample of Title V air permits and a National Pollutant Discharge Elimination System permit and draft permit for facilities on or near the 35th Avenue Superfund site. We also reviewed the Government Performance and Results Act, which requires agencies to have performance plans regarding program activity set forth in their budgets. See Appendix A for additional, program-specific details regarding what we reviewed.

#### EPA monitoring program

**Title V Air permits**, which are required by Title V of the Clean Air Act, are legally enforceable documents to improve compliance by clarifying what facilities, also referred to as sources, must do to control air pollution.

The **National Pollutants Discharge Elimination System** is an EPA-administered permit program that addresses water pollution by regulating point sources that discharge pollutants to waters of the United States.

We compiled and analyzed the data sources for mapping various attributes—such as air and water quality indicators, land contamination, and the EPA's RCRAInfo data—on or near the 35th Avenue Superfund site. We analyzed information from major EPA databases, permits, and a draft permit used to regulate land, air, and water. We also reviewed the EJScreen, an EPA environmental justice screening and mapping tool, which provides the EPA with a nationally consistent data set and approach for combining environmental and demographic indicators to identify environmental justice concerns.

We interviewed staff in Region 4's Air and Radiation Division, Superfund and Emergency Management Division, Water Division, and Land Chemicals and Redevelopment Division to discuss and obtain an understanding of what actions the EPA has taken both within and across its programs to identify and address any disproportionate health effects to disadvantaged communities located on or near the 35th Avenue Superfund site. We also sought to evaluate the processes followed by the Agency for compliance with applicable federal requirements and Agency policies and guidance.

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<sup>3</sup> As described in the EPA's "Mapping Power Plants and Neighboring Communities" [webpage](#), "a three-mile radius is consistent with environmental justice literature and studies, including the EJ Screening Report for the Clean Power Plan. These key demographics and information about nearby power plants may help identify a community's potential vulnerability to environmental concerns."

We also interviewed the former president of a neighborhood association to understand the EPA's involvement with the Collegeville neighborhood and the community's perception of the 35th Avenue Superfund site cleanup; a Region 4 toxicologist from the Superfund and Emergency Management Division to obtain an understanding of the human health risk assessment and cleanup process related to the 35th Avenue Superfund site; staff from the Region 4 Strategic Planning Office's Environmental Justice and Children's Health Program regarding their roles and responsibilities; and staff from the EPA's Office of Environmental Justice and External Civil Rights regarding their roles and responsibilities for coordinating across EPA programs.

## Prior Reports

OIG Report No. [21-P-0223](#), *EPA's Office of Land and Emergency Management Lacked a Nationally Consistent Strategy for Communicating Health Risks at Contaminated Sites*, issued September 9, 2021, found that the EPA did not consistently communicate human health risks at select sites being addressed by the Office of Land and Emergency Management in a manner that allowed impacted communities to decide how to manage their risks of exposure to harmful contaminants. We recommended that the Office of Land and Emergency Management implement internal controls to achieve nationally consistent risk communication to improve public awareness and understanding of risks; to monitor its risk communication efforts; and to provide community members with information to manage their risks when exposed to actual or potential environmental health hazards. All recommendations are resolved and completed.

OIG Report No. [15-P-0274](#), *EPA Can Increase Impact of Environmental Justice on Agency Rulemaking by Meeting Commitments and Measuring Adherence to Guidance*, issued September 3, 2015, found that continued delays in issuing or finalizing environmental justice guidance limits the EPA's ability to broadly and consistently consider environmental justice during the rulemaking process. This potentially impacts susceptible populations at high risk of suffering effects of environmental hazards. We recommended that the associate administrator for Policy implement a process to measure the use of environmental justice guidance, keep the EPA administrator informed if issuing environmental justice technical guidance is delayed, and provide training on the environmental justice technical guidance. We also recommended that the assistant administrator for Chemical Safety and Pollution Prevention provide training on the guidance for considering environmental justice during the rulemaking process. The Agency concurred with the recommendations and provided acceptable corrective actions with planned completion dates. All recommendations are considered resolved and completed.

OIG Report No. [15-P-0101](#), *EPA Regions Have Considered Environmental Justice When Targeting Facilities for Air Toxics Inspections*, issued February 26, 2015, found that the EPA regions had considered environmental justice in their activities targeting facilities for air toxics inspections. In addition, the report concluded that the EPA continues to update and advance important environmental justice tools to support regional targeting efforts. We made no recommendations in this report.

OIG Report No. [2006-P-00034](#), *EPA Needs to Conduct Environmental Justice Reviews of Its Programs, Policies, and Activities*, issued September 18, 2006, showed that EPA senior management had not

sufficiently directed program and regional offices to conduct environment justice reviews in accordance with Executive Order 12898. The majority of respondents to an OIG survey reported that their programs or offices had not performed environmental justice reviews. The survey respondents also expressed a need for further guidance to conduct environmental justice reviews. Until these program and regional offices perform environmental justice reviews, the Agency cannot determine whether its programs cause disproportionately high and adverse human health or environmental effects on minority and low-income populations. We made four recommendations, and the Agency accepted and completed corrective actions for all four.

## Chapter 2

# The EPA Lacks Agencywide Policies and Guidance to Address Cumulative Impacts and Disproportionate Health Effects Across Programs

Executive Orders 14008 and 13985, which were issued in 2021, make addressing cumulative impacts and disproportionate health effects across programs essential to furthering the EPA’s environmental justice objectives. While a Region 4 initiative examined air, water, and waste issues in North Birmingham communities from 2012 through 2016, we found that Region 4 programs generally took a siloed approach in considering cumulative impacts at the 35th Avenue Superfund site – meaning they looked primarily at cumulative impacts *within* individual programs rather than *across* programs. For example, the Region 4 Air program uses Air Emissions Modeling to address the potential cumulative impacts of combined *air* emissions only; it does not consider cumulative impacts of other media. The underlying cause of this siloed approach was the lack of both statutory mandates and agencywide policies and guidance for considering cumulative impacts and disproportionate health effects across various programs at the time of Region 4’s cleanup activities. The EPA has taken several actions—including the development of several guidance documents and plans—since we began our audit to further address environmental justice and better consider cumulative impacts in its decision-making. However, these documents and plans do not explicitly state how programs will coordinate with one another to address cumulative impacts when needed. If the Agency does not effectively work across programs to consider cumulative impacts, its ability to address disproportionate impacts to overburdened communities may be limited. In addition, the EPA has not established performance measures related to identifying and addressing cumulative impacts and disproportionate health effects across programs. This lack of performance measures prevents the EPA from fully assessing its progress in achieving equity and environmental justice when carrying out Agency functions.

## The EPA Is Required to Achieve Environmental Justice and Address Cumulative Impacts and Disproportionate Health Effects

### *Executive Orders Addressing Environmental Justice and Cumulative Impacts*

Issued in 1994, Executive Order 12898 states, “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.”

Executive Order 13985, issued in January 2021, states that agencies must recognize and work to redress inequities in their policies and programs that serve as barriers to equal opportunity. Although Executive Order 13985 does not specifically mention cumulative impacts, the EPA issued the *E.O. 13985 Equity Action Plan* in April 2022 to implement this executive order; this action plan calls for the development of a cumulative-impacts framework.

Executive Order 14008, issued in January 2021, declares a policy objective of implementing a governmentwide approach to reduce climate pollution in every sector of the economy; increase resilience to the impacts of climate change; protect public health; conserve our lands, waters, and biodiversity; deliver environmental justice; and spur well-paying union jobs and economic growth, especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure. The order requires agencies to make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related, and other cumulative impacts on disadvantaged communities, as well as to address the accompanying economic challenges of such impacts.

Although these three executive orders require certain Agency actions to address cumulative impacts or disproportionate health effects as part of achieving equity or environmental justice, they do not expressly require that programs coordinate to address these impacts and effects across the numerous programs. However, Executive Order 13985 defines “equity” to mean the consistent, systematic, fair, just, and impartial treatment of all individuals. As previously noted, the EPA defines “environmental justice” as the fair treatment and meaningful involvement of all people regardless of race, color, culture, national origin, income, and educational levels with respect to the development, implementation, and enforcement of protective environmental laws, regulations, and policies. In practice, this means that everyone enjoys the same degree of protection from environmental and health hazards, as well as equal access to the benefits of environmental resources and the decision-making process. To address cumulative impacts and disproportionate health effects in a manner that is consistent with the text and intent of the executive orders, strategic and cross-cutting program coordination is essential.

### ***Federal Laws Addressing Performance Measures***

The Government Performance and Results Act of 1993 and the GPRA Modernization Act of 2010 require the establishment of performance measures to be used in assessing overall progress toward performance goals.

## **Region 4 Considered Cumulative Impacts Primarily Within Individual Programs Rather than Across Programs**

While a Region 4 initiative examined air, water, and waste issues in North Birmingham communities from 2012 through 2016, we found that Region 4 programs generally took a siloed approach in considering cumulative impacts at the 35th Avenue Superfund site. In other words, Region 4 programs looked primarily at cumulative impacts *within* individual programs rather than *across* programs.

As part of the EPA’s “Making a Visible Difference in Communities” effort, which “focused on providing better support to communities, especially in environmentally overburdened, underserved, and economically distressed areas where the needs are greatest,”<sup>4</sup> Region 4 developed the North

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<sup>4</sup> “Making a Visible Difference in Communities,” <https://archive.epa.gov/epa/smartgrowth/making-visible-difference-communities.html> (last visited July 19, 2023).

Birmingham Environmental Collaboration Project. Implemented from 2012 through 2016, the project took a coordinated approach to evaluating environmental conditions and potential environmental impacts in North Birmingham communities. In addition, Region 4 engaged with the community and sponsored the formation of the North Birmingham Community Coalition in 2013 to bring together community members and government agencies to address environmental cleanups, enforcement, and community investments.

Despite these efforts, Region 4 staff mostly provided examples of how they considered cumulative impacts within individual programs, and they stated that they did not regularly consider cumulative impacts across programs. For example, the Air program's Emissions Modeling Platform and the Water program's Total Maximum Daily Loads are two tools used by Region 4 to measure cumulative impacts within each respective program. The Emissions Modeling Platform considers cumulative impacts of air pollutants in the atmosphere by identifying the potential or simulated cumulative physical and chemical impacts. Total Maximum Daily Loads establish the maximum amount of pollutants that can be present in a water body and still meet water quality standards.

But, at the time we conducted our work in Region 4, we found no regular coordination among the individual programs to consider total cumulative impacts across programs. Rather, each program took a siloed approach. For example:

- According to Region 4 Air staff, when the EPA reviewed air permits, it considered air pollution for the permitted facility only.
- Region 4 RCRA staff believed they were limited in their ability to consider cumulative impacts beyond the immediate on-site cleanup because they did not have authority beyond the RCRA statute. However, the Office of Resource Conservation and Recovery noted that under RCRA section 3004(u) and (v), RCRA corrective action cleanup authority does extend to off-site contamination from releases from solid waste management units at treatment, storage, and disposal facilities.

## **The EPA Lacks Policies, Guidance, and Performance Measures Related to Cross-Program Cumulative Impacts or Disproportionate Health Effects**

The Region 4 Superfund, RCRA, Air, and Water programs' policies and guidance did not require these programs to coordinate to identify and address cumulative impacts across the programs. This was because, at the time of our audit work, the EPA lacked agencywide policies or guidance requiring such cross-program coordination. Further, as of July 2023, the EPA had not established performance measures related to identifying and addressing cumulative impacts and disproportionate health effects across programs.

The EPA had issued some guidance prior to the start of our audit work in 2021 that aimed to bolster cross-program coordination and consideration of cross-media cumulative impacts. For example:

- **To avoid duplication of efforts**, the EPA issued a memorandum in 1996 titled *Coordination Between RCRA Corrective Action and Closure and CERCLA Site Activities*. This memorandum focuses on coordinating efforts to eliminate duplication of effort, streamline cleanup processes, and build effective relationships, but it does not discuss identifying and addressing cumulative impacts or disproportionate health effects across programs.
- **To consider in part cross-cutting cumulative impacts when writing regulations**, the EPA issued its *Guidance on Considering Environmental Justice During the Development of Regulatory Actions* in May 2015. Written to implement Executive Order 12898, this guidance aims to ensure “understanding and foster consistency with efforts across EPA’s programs and regions to consider environmental justice and make a visible difference in America’s communities.” The guidance aids Agency rule-writers during the development of regulatory actions and identifies several factors that should be considered when assessing environmental justice concerns, including multiple stressors and cumulative impacts.
- **To ensure consistency in its assessments of environmental justice concerns for regulatory actions**, the EPA issued its *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis* in June 2016. This guidance discusses contributors to the uneven distribution of health risks and outlines technical approaches to incorporate environmental concerns, including the impacts of multiple stressors, in regulatory analysis.

However, we did not identify policies or guidance that explicitly required the Agency to identify cumulative impacts and disproportionate health effects across its programs. EPA program staff whom we interviewed confirmed that there was a lack of policies and guidance at the agencywide level to identify and address cumulative impacts. The effects of this lack of policies and guidance also impacted the regions. For example, Region 4 did not have or require a central point of contact for the Superfund, RCRA, Air, and Water programs who would ensure coordination between programs to address cumulative impacts.

#### Region 4 official pointed to lack of guidance

In response to whether Region 4 considered cumulative impacts across programs, a Region 4 official whom we interviewed stated, “A good project manager at the facility would be trying to understand the big picture, but that is not written down in the guidance document.”

Additionally, the statutes for each program—including the Comprehensive Environmental Response, Compensation, and Liability Act; RCRA; Clean Air Act; Clean Water Act; and Safe Drinking Water Act—do not contain requirements regarding disproportionate health effects or collaboration to consider the cumulative impact of contaminants across multiple programs. Given the lack of requirements in statutes, as well as the lack of clear policies and guidance that address cumulative impacts across multiple programs, EPA programs—not just in Region 4 but across the Agency—may take a siloed approach in identifying and addressing cumulative impacts and disproportionate health effects. The EPA administrator acknowledged this lack of coordination in the *EPA Annual Environmental Justice Progress*

*Report FY 2020*, expressing the need “to tear down the silos between programs within the agency so that [the EPA] can be more effective in addressing the environmental burdens that communities face.” While many of the EPA’s legal authorities on advancing environmental justice and equity are clear, others may involve interpretive issues or consideration of legal risk, calling for further analysis. Therefore, how the EPA may consider and address cumulative impacts will depend on the statutory and regulatory context.

Furthermore, as of July 2023, the EPA had not established performance measures related to identifying and addressing cumulative impacts and disproportionate health effects across programs. Pursuant to Office of Management and Budget Circular A-11, *Preparation, Submission, and Execution of the Budget*, published in August 2022, the EPA structured its fiscal year 2023 budget submission to include the performance plan required by the GPRA Modernization Act of 2010. While there are several performance measures in the fiscal year 2023 budget that address environmental justice and equity, we did not find any that explicitly address cumulative impacts and disproportionate health effects across programs.

## **Recent Agency Actions Address Cumulative Impacts but Do Not Explicitly Address How the EPA Will Work Across Different Programs**

The EPA has taken several actions since we began our audit work to address environmental justice and better consider cumulative impacts in its decision-making. However, the Agency needs to further refine its policies and guidance to explicitly address how cumulative impacts will be considered across programs.

In March 2022, the EPA issued a new strategic plan. To address the priorities set forth in Executive Orders 13985 and 14008, the *Fiscal Year 2022–2026 EPA Strategic Plan* Strategic Goal 2 is to “take decisive action to advance environmental justice and civil rights.” It includes the following key objectives:

- Objective 2.1: “Promote Environmental Justice and Civil Rights at the Federal, Tribal, State, and Local Levels.”
- Objective 2.2: “Embed Environmental Justice and Civil Rights into EPA’s Programs, Policies, and Activities.”
- Objective 2.3: “Strengthen Civil Rights Enforcement in Communities with Environmental Justice Concerns.”

To achieve Strategic Goal 2, the Agency included the development and implementation of a cumulative-impacts framework in its strategic plan.

In April 2022, the EPA issued the *E.O. 13985 Equity Action Plan*, which calls for developing a framework for assessing cumulative impacts and disproportionate health impacts. According to the plan, this cumulative-impacts framework must incorporate the vulnerabilities and susceptibilities related to the accumulation of multiple environmental and social stressors that lead to adverse health and quality of life outcomes. The EPA prioritized this action because communities, environmental justice leaders, and

EPA staff have identified addressing cumulative impacts as critical to achieving equitable and just outcomes across EPA programs in permitting, compliance monitoring and enforcement, cleanup, rulemaking, and other contexts. The Agency told us it expects to issue a draft framework by the end of fiscal year 2023.

In May 2022, the EPA published *EPA Legal Tools to Advance Environmental Justice*, which is “intended to help EPA decisionmakers understand their authorities to consider and address environmental justice and equity in decision-making, and to promote meaningful engagement.” This compilation identifies a broad range of EPA legal authorities to advance environmental justice and equity in Agency actions consistent with the statutes that the EPA administers, which may include consideration of cumulative impacts. In January 2023, the EPA issued an addendum to this document, called *EPA Legal Tools to Advance Environmental Justice: Cumulative Impacts Addendum*. This addendum builds on the discussion of cumulative impacts in *EPA Legal Tools to Advance Environmental Justice*, providing further detail and analysis on the Agency’s legal authority to address cumulative impacts affecting communities with environmental justice concerns.

In September 2022, the Agency established the OEJECR to put the advancement of environmental justice and civil rights on par with other EPA programs. According to OEJECR, it is charged not only with executing programs and developing policies nationally but also with working to integrate equity and environmental justice, including considering and addressing cumulative impacts, into the development, implementation, and enforcement of environmental policies, programs, and actions. The OEJECR also leads a cumulative impacts workgroup, which formed around the development of the cumulative impacts framework and meets weekly. In addition, the OEJECR’s staff works with a network of liaisons in the national programs and environmental justice staff in the regions.

Lastly, in September 2022, the EPA’s Office of Research and Development issued a report titled *Cumulative Impacts Research: Recommendations for EPA’s Office of Research and Development*. This report was prepared by the EPA’s Cumulative Impacts Scoping Workgroup, which comprised staff from the Office of Research and Development; the Office of Environmental Justice, a predecessor office of the OEJECR; and the regional offices. It was developed to complement the Office of Research and Development’s *Strategic Research Action Plans Fiscal Years 2023–2026*.

While these are important accomplishments and demonstrate progress, the new plans and guidance do not explicitly state how programs will coordinate with one another to address cumulative impacts. For example, the *EPA Legal Tools to Advance Environmental Justice: Cumulative Impacts Addendum* is organized to address how cumulative impacts can be considered within individual statutes, such as the Clean Air Act, but does not explicitly lay out procedures for how offices should coordinate when there are multiple sources of contamination found in various media—such as soil, water, and air—and thus involve different statutory authorities.

## Not Identifying Cumulative Impacts Across Programs Limits the EPA's Ability to Determine Disproportionate Health Effects

Without identifying the cumulative impacts of multiple sources of contamination found in various media, Region 4 cannot fully determine where disproportionate health effects may exist. While Region 4 told us that its RCRA and Superfund programs have coordinated with one another on occasion, the EPA has no policies and guidance that explicitly require regular coordination between its programs to identify and address cumulative impacts across programs. The lack of policy and guidance—and the ensuing potential lack of coordination—limits the EPA's efforts to address disproportionately adverse human health and environmental impacts in overburdened communities. Furthermore, the lack of performance measures related to cumulative impacts and disproportionate health effects across programs prevents the EPA from fully assessing its progress toward achieving equity and environmental justice when carrying out Agency functions.

Given the concentration of polluting facilities in communities with environmental justice concerns and the ways in which nonchemical stressors can compound the effects of pollution,<sup>5</sup> stakeholders have identified cumulative impacts as a critical issue for the Agency to address. These stakeholders include communities; environmental justice leaders; the National Environmental Justice Advisory Council, which provides advice and recommendations to the EPA; and scientists.

Developing and implementing policies, guidance, and performance measures related to cumulative impacts and disproportionate health effects across programs will increase and improve coordination between the Superfund, Air, RCRA, and Water programs, both in Region 4 and across the Agency. Increased coordination across programs will help the EPA to consistently identify and address disproportionate health effects, which is critical to advancing environmental and public health outcomes in all communities.

## Conclusions

While Region 4 considered cumulative impacts within its Superfund, RCRA, Air, and Water programs individually, it did not consider cumulative impacts, and thereby disproportionate health effects, across these programs. This was largely because there were no agencywide policies and guidance that explicitly require EPA programs to do so at the time Region 4 was making cleanup decisions for the 35th Avenue Superfund site. The EPA has since taken additional action to advance the consideration of cumulative impacts and environmental justice, but Agency guidance and policies do not explicitly address how programs should coordinate when impacts span multiple programs. The Agency needs to improve coordination between its Superfund, RCRA, Air, and Water programs to consistently address cumulative impacts across programs.

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<sup>5</sup> See the EPA's [E.O. 13985 Equity Action Plan](#), dated April 2022, for more information on the location of polluting facilities and the compounding effects of pollution.

Furthermore, policies and guidance are still needed to improve the EPA’s overall understanding of and ability to address cumulative impacts and disproportionate health effects across programs. As it develops and implements such policies and guidance, the EPA should develop and implement related performance measures, which will help the Agency monitor progress toward its environmental justice and equity goals and show how its efforts align with its mission. Additionally, the development of such policies and guidance will assist in achieving the *FY 2022–2026 EPA Strategic Plan* Strategic Goal 2 to “take decisive action to advance environmental justice and civil rights.” Without such policies, guidance, and performance measures, EPA programs may continue to make decisions that affect community health and well-being without considering and addressing the full context of cumulative impacts and disproportionate health effects.

## Recommendations

We recommend that the administrator for Environmental Justice and External Civil Rights:

1. Develop and implement policies and guidance consistent with Executive Orders 12898, 13985, and 14008 to increase and improve coordination between EPA programs to assess and address cumulative impacts and disproportionate health effects in Agency decision-making, programs, policies, and activities.
2. Develop and implement performance measures to monitor progress in identifying and addressing cumulative impacts and disproportionate health effects across EPA programs.

## Agency Response and OIG Assessment

Appendix B includes the Agency’s July 21, 2023 response to our draft report. The Agency also provided technical comments, which we considered as we finalized this report. The OEJECR concurred with our recommendations and proposed corrective actions with planned completion dates.

In response to Recommendation 1, the OEJECR stated that it is committed to issuing a policy document to formalize the establishment of a cumulative impacts working group and to clarify the charter, membership, and responsibilities of the group. The OEJECR said that “the working group will promote collaboration and coordination by developing policies, procedures and practices, as appropriate, to improve coordination and consistency across programs.” In addition, the OEJECR stated that the “working group will identify and promote opportunities to share promising practices and collaborate across program silos through better use of collaboration tools,” development of a shared website, and “development and management of other communications and collaboration tools.” The OEJECR provided a planned completion date of December 31, 2023, for its proposed corrective action. We believe this proposed corrective action meets the intent of the recommendation; thus, we consider Recommendation 1 to be resolved with corrective actions pending.

In response to Recommendation 2, the OEJECR stated that the EPA is in the process of developing and operationalizing a number of performance measures to consider and address cumulative impacts. These

include the EPA's *Agency Equity Plan*, which has indicators to track the Agency's progress in developing and operationalizing a framework for considering cumulative impacts in the EPA's programs and activities. According to the OEJECR, measurable steps in the *Agency Equity Plan* include forming a team of qualified EPA staff "to implement cumulative impacts analysis to address cumulative impacts, developing a draft framework, piloting case studies, and beginning to operationalize the framework." The OEJECR stated that it is also working with the administrator's senior advisor on environmental justice, the national program offices, and the regions to report quarterly on progress in considering and addressing equity, environmental justice, civil rights, and cumulative impacts in permitting and other activities. The OEJECER stated that the cumulative impacts working group will build on the reporting mechanisms developed for the quarterly report, evaluate the need for additional outcome-based metrics to demonstrate progress, and provide recommendations to the deputy administrator. The OEJECR provided a planned completion date for these proposed corrective actions of June 30, 2024. We agree with the OEJECR's planned corrective action and completion date for Recommendation 2, and we consider that recommendation resolved, with corrective actions pending.

## Status of Recommendations

Rec. No.	Page No.	Recommendation	Status*	Action Official	Planned Completion Date
1	16	Develop and implement policies and guidance consistent with Executive Orders 12898, 13985, and 14008 to increase and improve coordination between EPA programs to assess and address cumulative impacts and disproportionate health effects in Agency decision-making, programs, policies, and activities.	R	Administrator for Environmental Justice and External Civil Rights	12/31/23
2	16	Develop and implement performance measures to monitor progress in identifying and addressing cumulative impacts and disproportionate health effects across EPA programs.	R	Administrator for Environmental Justice and External Civil Rights	6/30/24

\* C = Corrective action completed.

R = Recommendation resolved with corrective action pending.

U = Recommendation unresolved with resolution efforts in progress.

## Documents Reviewed by the OIG

Documents related to environmental justice and risk communication		
<ul style="list-style-type: none"> <li>• Executive Orders 12898, 13985, and 14008.</li> <li>• <i>FY 2022–2026 EPA Strategic Plan</i>.</li> <li>• <i>Plan EJ 2014</i>.</li> <li>• <i>EJ2020 Action Agenda: The U.S. EPA’s Environmental Justice Strategic Plan for 2016–2020</i>.</li> <li>• <i>EPA Annual Environmental Justice Progress Report, FY 2020</i>.</li> <li>• <i>EPA Legal Tools to Advance Environmental Justice, May 2022</i>.</li> <li>• <i>EPA Legal Tools to Advance Environmental Justice: Cumulative Impacts Addendum, January 2023</i>.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Guidance on Considering Environmental Justice During the Development of Regulatory Actions</i>.</li> <li>• <i>Technical Guidance for Assessing Environmental Justice in Regulatory Analysis</i>.</li> <li>• Cumulative Risk Assessment.</li> <li>• <i>E.O. 13985 Equity Action Plan U.S. Environmental Protection Agency</i>.</li> <li>• EPA Memorandum, <i>Principals for Addressing Environmental Justice in Air Permitting</i>, December 22, 2022, with attachment, “EJ in Air Permitting Principals for Addressing Environmental Justice Concerns in Air Permitting.”</li> </ul>	
Documents related to the Superfund program		
<ul style="list-style-type: none"> <li>• Comprehensive Environmental Response, Compensation and Liability Act, as amended.</li> <li>• <i>Guidance on Conducting Non-Time-Critical Removal Actions under CERCLA</i>.</li> <li>• 35th Avenue Superfund site documents.</li> </ul>	<ul style="list-style-type: none"> <li>• Site-Specific Action Memorandum.</li> <li>• <i>Risk Assessment Guidance for Superfund</i>.</li> <li>• National Oil and Hazardous Substances Pollution Contingency Plan.</li> </ul>	
Documents related to the RCRA program		
<ul style="list-style-type: none"> <li>• RCRA.</li> <li>• RCRA 3008(h) Administrative Order on Consent.</li> <li>• <i>Coordination between RCRA Corrective Action and Closure and CERCLA Site Activities</i>.</li> <li>• RCRA cleanup policies and guidance.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Fact Sheet #1: History of RCRA Corrective Action</i>.</li> <li>• <i>RCRA Orientation Manual 2014: Resource Conservation and Recovery Act</i>.</li> </ul>	
Documents related to the Air program		
<ul style="list-style-type: none"> <li>• Clean Air Act.</li> </ul>	<ul style="list-style-type: none"> <li>• Title V permit review checklist.</li> </ul>	<ul style="list-style-type: none"> <li>• Sample of Title V permits.</li> </ul>
Documents related to the Water program		
<ul style="list-style-type: none"> <li>• Clean Water Act.</li> <li>• Safe Drinking Water Act.</li> </ul>	<ul style="list-style-type: none"> <li>• Sample of National Pollutant Discharge Elimination System permit and draft permit.</li> <li>• Region 4 National Pollutant Discharge Elimination System Permitting Section, Industrial Permit Review Checklist.</li> </ul>	

Note: CERCLA stands for Comprehensive Environmental Response, Compensation, and Liability Act.

## Agency Response to Draft Report



UNITED STATES ENVIRONMENTAL PROTECTION  
AGENCY  
Washington, DC

July 21, 2023

### MEMORANDUM

**SUBJECT:** Response to the Office of Inspector General Draft Report, Project No. OA-FY21-0279, The EPA Lacks Agencywide Policies and Guidance to Address Cumulative Impacts and Disproportionate Health Effects on Communities with Environmental Justice Concerns, dated March 30, 2023

**FROM:** Theresa Segovia, Principal Deputy Assistant Administrator  
Office of Environmental Justice and External Civil Rights

Segovia,  
Theresa

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Segovia, Theresa  
Date: 2023.07.20  
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**TO:** Erick Hauck  
Office of Audit, Pollution Control and Cleanup Directorate

Dear Ms. Hauck,

Thank you for the opportunity to review and comment on the draft report by the U.S. Office of Inspector General for EPA (OIG), *The EPA Lacks Agencywide Policies and Guidance to Address Cumulative impacts and Disproportionate Health Effects on Communities with Environmental Justice Concerns*, dated March 30, 2023. As we discussed, given its mandate to advance environmental justice, the Office of Environmental Justice and External Civil Rights (OEJECR) is providing the U.S. Environmental Protection Agency's (EPA)'s response to the draft, findings and recommendations. We appreciate the OIG's work on this subject and the OIG's collegial relationship and dialogue with our staff.

EPA is committed to advancing environmental justice, and particularly, to addressing critical challenges to the health and environment of communities that have been disproportionately impacted by environmental risks or hazards, such as in North Birmingham, Alabama. As described below, we have taken a number of key steps to develop a whole-of-agency approach to considering and addressing the cumulative impacts of chemical and non-chemical stressors affecting the health and welfare of the underserved communities, to coordinate these activities, and to hold ourselves accountable for progress. We recognize that individuals, communities, and Tribes are exposed to numerous stressors from a wide array of sources through multiple pathways. Addressing the cumulative impacts of these stressors over time is critical for carrying out EPA's mission to protect public health and the environment of all people in the United States.

EPA understands the need for further advancements on identifying and addressing cumulative impacts and, while moving forward with pilot cumulative impacts initiatives, is also committed to issuing and implementing a Cumulative Impacts Framework to achieve real benefits for communities with environmental justice concerns. To that end, we hope that the final OIG report will recognize this work as well as the accomplishments of EPA Region 4.

The response includes two sections: first, the response provides background information and addresses the factual accuracy of the draft report. Second, please find our response to the report's two recommendations.

#### Background Information and Technical Corrections to the Draft

Over the last two years, EPA has taken a number of key steps to promote coordination and consistency in our work on cumulative impacts and to improve EPA's capacity to assess and address cumulative impacts going forward. First, in September 2022 the Office of Research and Development (ORD) issued *Cumulative Impacts Research: Recommendations for EPA's Office of Research and Development* to inform the development and implementation of its Strategic Research Action Plan (StRAP) for FY2023-2026 and to strengthen the scientific foundation for assessing cumulative impacts. To provide clarity and consistence, the report provides definitions of cumulative impacts and cumulative impacts assessment. Second, in January 2023, the Office of General Counsel (OGC) issued the [Cumulative Impacts Addendum](#) to *EPA Legal Tools to Advance Environmental Justice*. The *Addendum* provides analysis of EPA's legal authority to address cumulative impacts. Recognizing that EPA's authority varies across contexts, the *Addendum* provides illustrative examples and serves as a guide on the scope of EPA's authority to address cumulative impacts in specific scenarios. These foundational documents help guide EPA's ongoing efforts across our programs and regions to assess and address cumulative impacts and disproportionate health effects. EPA's third major guidance on this issue is a framework for assessing and addressing cumulative impacts, as called for in EPA's Equity Action Plan pursuant to Executive Order 13985 and Goal 2 of EPA's FY2022-2026 Strategic Plan. A draft of this framework will be completed this fiscal year.

Given these efforts and others mentioned below, it is inaccurate to say that EPA "lacks" any policies and guidance to address cumulative impacts and disproportionate health effects. The Administrator's June 13, 2022, memo, *Holding Ourselves Accountable for Implementation of the FY2022-2026 EPA Strategic Plan and EPA's Equity Action Plan*, directs programs and regions to advance this work. It requires all programs and regions to identify and implement opportunities to provide immediate benefits to overburdened communities, including the use of our authorities to consider and address cumulative impacts, to review and, where appropriate, revise program guidance to address cumulative impacts, and to report on these activities. The Administrator asked his senior advisor on Environmental Justice to report to him quarterly on progress. In addition to information provided by ORD and the *Cumulative Impacts Addendum to Legal Tools*, which are

resources across Agency programs, EPA has multiple tools and documents providing information about how to utilize various methodologies for assessing cumulative impacts such as [Health Impact Assessments](#). The [Interim EJ and CR in Permitting FAQs](#) also provides information about how EPA considers cumulative impacts within a civil rights disparate impact analysis, at Q. 12.<sup>6</sup>

At this point, the Agency has a number of cross-agency forums for encouraging the exchange of information, coordination, and collaboration on advancing environmental justice and considering and addressing cumulative impacts. These include the Environmental Justice (EJ) in Permitting Community of Practice, the Environmental Justice (EJ) in Rulemaking Community of Practice, each of which meets monthly, an OGC and Offices of Regional Counsel workgroup on EJ and cumulative impacts, which meets regularly, and a cross-agency group formed to coordinate communications regarding cumulative impacts. The Charter for the EJ in Permitting Community of Practice created a structure for sharing information across the agency on identifying,

evaluating, and developing analytical tools and methods for advancing EJ. Although it doesn't call out cumulative impacts by name, assessing cumulative impacts is one of the most critical tools at the heart of the work. The Charter includes capacity for teams to be deployed to meet needs, and the first such team that was organized worked with ORD and Region 5 to provide technical assistance to the City of Chicago on its Health Impact Assessment of cumulative and disproportionate impacts in the RMG/General Iron permit decision. OEJEER also leads a cumulative impacts workgroup, which formed around the development of the cumulative impacts framework and meets weekly. Its function has recently broadened to play a larger coordination role as EPA advances cumulative impacts analysis.

The organizational structure of OEJEER, the newly created National Program office of OEJEER that EPA launched in September 2022, will also foster greater coordination of cumulative impacts assessment across the Agency. For the first time in the Agency's history, EPA has put environmental justice and civil rights organizationally on par with other national programs and made them the focus of one of its strategic goals in its FY2022-2026 Strategic Plan. OEJEER is charged not only with executing programs and developing policies nationally but, also, working to integrate equity and environmental justice, including considering and addressing cumulative impacts, into the development, implementation and enforcement of environmental policies, programs, and actions. As the draft report indicates, in coordination with the Office of Policy, OEJEER's Office of Policy, Partnerships and Program Development works with EPA's national programs and regional offices, to integrate equity, environmental justice, and civil rights into their

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<sup>6</sup> See also Promising Practices for EJ Methodologies in NEPA Reviews, 30-32. In addition, reflecting the range of authority applicable to considering and addressing cumulative impacts, the *Cumulative Impacts Addendum*, at 23, outlines authority pursuant to Section 3019 of the Resource Conservation and Recovery Act (RCRA) "to increase the requirements of applicants for certain permits to provide exposure information and to request that the Agency for Toxic Substances and Disease Registry (ATSDR) conduct a Health Assessment." (citation omitted). ATSDR's [Public Health Assessment Guidance](#) requires analysis of cumulative impacts and provides information on methodology.

decision-making related to rules, permits, cleanups and other activities, as allowed by law. OEJECR's staff works with a network of liaisons in the national programs and environmental justice staff in the regions.

Based on our governing authorities and our practice, we realize that there is no one-size-fits-all approach for assessing and addressing cumulative impacts. In the *Cumulative Impacts Addendum to EJ Legal Tools*, OGC stated that while "EPA's legal authority to address cumulative impacts in communities with environmental justice concerns permeates the full breadth of the Agency's activities[,] [w]hether and how EPA utilizes its legal authorities to address cumulative impacts will depend, among other things, on the specific statutory, regulatory, policy, scientific, and factual contexts at issue, as well as the resources available to the Agency."<sup>7</sup> By definition, the nature of a cumulative impacts analysis requires, where feasible and where we have authority,<sup>8</sup> breaking out of silos and taking account of the full array of chemical and non-chemical stressors. According to ORD's definition, cumulative impacts are defined as "the *totality of exposures* to combinations of chemical and non-chemical stressors and their effects on health, well-being, and quality of life outcomes."<sup>9</sup> A robust cumulative impacts assessment will examine chemical and nonchemical stressors across multiple pathways of exposures, although some analyses only take account of some of the stressors or some of the pathways, depending on the context. The various documents that the Agency has issued over the last two years along with the structures created to share information and coordinate the development and use of cumulative impact assessment methodologies provide guidance and support, as the Agency addresses cumulative impacts and disproportionate health effects on communities with environmental justice concerns. At the same time, this approach provides needed flexibility for programs operating under varying authorities.

Region 4 suggests that the OIG restructure "What We Found" to more accurately and fairly articulate the actions of the Region in North Birmingham communities. The statement, "Contrary to the intent of Executive Orders 12898, 13985, and 14008, Region 4 did not address cumulative impacts of contaminants and disproportionate health effects across its various program offices when making program-specific and cleanup decisions at and around the 35th Avenue Superfund site," which appears in the draft, creates an inaccurate perception about the Region's actions relative to existing authority and guidance at the time of those actions. Notably, some of these Executive Orders did not exist at the time of Region 4's actions, which took place starting more than ten years ago. (Please find a timeline of actions, added as an exhibit to these comments.)

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<sup>7</sup> EPA, EPA LEGAL TOOLS TO ADVANCE ENVIRONMENTAL JUSTICE: CUMULATIVE IMPACTS ADDENDUM (2023), at 2, <https://www.epa.gov/system/files/documents/2022-12/bh508-Cumulative%20Impacts%20Addendum%20Final%202022-11-28.pdf>.

<sup>8</sup> "[U]nder its various information gathering, research, and other authorities, EPA may assess and document cumulative impacts in a wide range of Agency actions to inform decision-making. Such assessments can support action under other EPA authorities and spur further engagement to address cumulative impacts beyond the specific regulatory context originally at issue" *Id.* at 3.

<sup>9</sup> EPA, CUMULATIVE IMPACTS: RECOMMENDATIONS FOR ORD RESEARCH (2022), EPA/600/R-22/014F, at 4, <https://www.epa.gov/healthresearch/cumulative-impacts-research> (emphasis added).

Though the draft ultimately acknowledges that there was no guidance or requirement to undertake the specific type of action at issue during much of the pendency of Region 4's work, the draft nonetheless creates a negative and inaccurate perception that that the Region's actions were inconsistent with policy. The section should be modified to be both fair and accurate.

In fact, Region 4 developed a comprehensive strategy for community engagement around the environmental challenges in the North Birmingham communities of Collegeville, Harriman Park, and Fairmont. This included a cross-programmatic approach to assessing, identifying, and addressing these challenges through an environmental collaborative process centering around the heavy industrialized areas. Specifically, air modeling of the industry operations was used to determine the initial Site boundaries. Based on this data, EPA expanded the boundaries to include all of the Collegeville and Harriman Park neighborhoods and most of Fairmont (the most populated areas closest to the facility). In 2016, the EPA tested the soil at 23 residential properties in the south Tarrant and Inglenook neighborhoods and concluded that additional expansion was not warranted. Modeling, sampling, field observations and historical information have shown, rather than air disposition, the primary source of contaminated soil is contaminated fill material from local facilities that was used in low-lying areas to prevent flooding. Notably, Region 4's work in North Birmingham is an example of emerging practice in the area of cumulative impacts through the Making a Visible Difference Initiative. Indeed, the North Birmingham Collaboration Project was established as an umbrella effort in which EPA piloted community-based work using a One-EPA approach in a collaborative manner to address cumulative impacts. During this project, there was collaboration across programs such as Land, Chemical and Redevelopment Division-Resource Conservation and Recovery Act, Superfund Emergency Management Division, Water Division and the Air and Radiation Division.

Additional specific corrections follow:

1. The Region is concerned that the Report suggests that Region 4 is at fault for not following EPA cumulative impact assessment guidance despite the fact there was no specific pre-existing applicable guidance on cumulative impacts and, also, the cross-programmatic approach taken in North Birmingham. Moreover, the report seems to criticize EPA's policy and guidance for not explicitly *requiring* regions to identify and address cumulative impacts and disproportionate health effects across programs, though by design, guidance and policies are intended to convey information about the meaning of or how to implement requirements set forth elsewhere. The version of events depicted in the draft may cause confusion about applicable requirements and lead to undeserved negative concerns among the engaged community groups, which the Region has worked closely with over many years to develop a positive working relationship.
2. The Report states, "We also interviewed the former president of Collegeville Neighborhood Association, a neighborhood on the Superfund site, to understand the EPA's involvement with the neighborhood and the community's perception of the 35th Avenue

Superfund site cleanup; a Region 4 toxicologist from the Safety and Environmental Land Division to obtain an understanding of the cleanup process related to the 35th Avenue Superfund site.” Assuming that the Report is referring to Kevin Koporec as the Region 4 toxicologist, the text should read: “...a Region 4 toxicologist from the Superfund and Emergency Management Division to obtain an understanding of the human health risk assessment/cleanup process related to the 35th Avenue Superfund site.” In Appendix A: Documents Reviewed by the OIG, the Report should also include reference to EPA *Legal Tools to Advance Environmental Justice* and the *Cumulative Impacts Addendum* to that document, available at: <https://www.epa.gov/ogc/epa-legal-tools-advance-environmental-justice>.

### Response to Recommendations

1. Develop and implement policies and guidance to increase and improve coordination between EPA programs to assess and address cumulative impacts and disproportionate health effects.

OEJECR concurs with this recommendation and commits to issuing a policy document to formalize the establishment of the cumulative impacts working group and clarify the charter and responsibilities of the group. OEJECR will engage the programs and regions on appropriate representation in the working group. Although the current working group functions to facilitate coordination and consistency, the charter will provide greater clarity about the roles and responsibilities of the working group in advancing the Agency’s efforts to consider and address cumulative impacts. Specifically, the working group will promote collaboration and coordination by developing policies, procedures and practices, as appropriate, to improve coordination and consistency across programs. The working group will identify and promote opportunities to share promising practices and collaborate across program silos through better use of collaboration tools, development of a SharePoint site, and development and management of other communications and collaboration tools. In addition, the working group will track and catalogue activities throughout programs and regions that address cumulative impacts. This involves the development and maintenance of an inventory of significant cumulative impacts activities. In addition, the working group will develop and maintain a repository of examples of cumulative impact assessments, track tools and materials available, and develop and maintain a clearinghouse of cumulative impacts resources. Planned completion date for establishing the working group: December 31, 2023.

2. Develop and implement performance measures to monitor progress in identifying and addressing cumulative impacts and disproportionate health effects across EPA programs.

OEJECR concurs. Based on both the variation in our governing authorities and lessons learned from our experience, there is no one-size-fits-all approach for assessing and addressing cumulative impacts and no one-size-fits-all approach to performance metrics to evaluate this effort. EPA is already in the process of developing and operationalizing a number of relevant performance indicators relevant to our work to consider and address cumulative impacts. EPA’s [Agency Equity Plan](#) for example, includes indicators to track our progress in developing and operationalizing a

framework for considering cumulative impacts in EPA's programs and activities. Measurable steps in the Agency Equity Plan include forming a team of EPA staff with appropriate expertise to implement cumulative impacts analysis to address cumulative impacts, developing a draft framework, piloting case studies, and beginning to operationalize the framework. Longer term, EPA commitments include building consideration of cumulative impacts into more decisions, including permitting decisions, continuing to refine analytic techniques based on best available science, increasing the body of relevant data and knowledge, and using outcome-based metrics to measure progress, including quantifiable pollution reduction benefits in communities that result from decisions that factor in cumulative impacts. Pursuant to the Administrator's June 13, 2022 Memo,  *Holding Ourselves Accountable*, the Administrator's Senior Advisor on Environmental Justice is working with OEJECR and the national program offices and regions to report quarterly on progress in considering and addressing equity, environmental justice, civil rights, and cumulative impacts in permitting, among other activities. Building on the reporting mechanisms developed for purposes of the quarterly report, the Cumulative Impacts Workgroup will evaluate the need for additional outcome-based metrics to demonstrate progress and provide recommendations to the Deputy Administrator. Planned completion dates: workgroup recommendations by March 30, 2024, and finalizing any additional outcome-based metrics by June 30, 2024.

## APPENDIX

### Timeline of Actions in R4 in North Birmingham and Relative to the Enactment of Executive Orders:

- 2009 EPA funds the sampling of air toxics nationally near schools and N. Birmingham.
  
- 2009-2011 R4 LCRD-RCRA sampling work at and in the host community of the Walter Coke facility triggers a deferral to Superfund.
  
- Aug. 1, 2011 Head of R4 SEMD Emergency Response (Shane Hitchcock) triggers a Removal Site Evaluation.
  
- Jan. 2012 MVD Work Begins. EPA R4 identifies N. Birmingham to be a MVD, which calls for a diversity of Divisions to collaborate on this place-based initiative. One of the first actions is hosting a Regional Interagency Working Group on EJ meeting to collaborate with other Federal agencies to better serve N. Birmingham. [As the website that EPA shared with the OIG states:](#) “EPA is approaching the environmental assessment of the designated communities in the North Birmingham area in a comprehensive manner....”
  
- Sept. 25, 2013 EPA R4 SEMD writes the first Time Critical Action Memorandum. Site work continues to the present day.
  
- December 2016 MVD Initiative, or N. Birmingham Environmental Collaboration Project, ends due to change of the Presidential Administration.
  
- January 2021 Presidential E.O. 14008 and 13985 is enacted.

## *Distribution*

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U.S. Environmental Protection Agency

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