

This memorandum relates to the **MODEL STATUTE IDENTIFYING AND MITIGATING CUMULATIVE IMPACTS IN ENVIRONMENTAL JUSTICE AREAS.**

Introduction

This model bill addresses the issue of cumulative impacts, which arise when multiple sources of pollution and other environmental and public health stressors exist in a community, affecting the health and well-being of residents in ways that may not be identifiable when examining the effects of a single stressor or source of pollution.¹ Pollution from even a single source in isolation can have detrimental health effects for those who live, work, attend school, or recreate nearby.² Even exposures to common pollutants can have a number of serious negative health effects,³ which are compounded when a person is exposed to multiple sources and types of environmental pollution.⁴

These overlapping burdens are more likely to exist in low-income communities and communities of color and are exacerbated by existing inequities caused by historic discrimination, marginalization, and overburdening.⁵ A variety of environmental, social, and socioeconomic factors can limit the ability of some communities to engage fully in public decision-making processes that can influence where environmental hazards are located.⁶ While these communities are more likely to be burdened with pollution, residents are more likely to suffer from cardiovascular disease, diabetes, asthma, cancer, reproductive harms, and premature mortality, as well as other medical conditions that leave them more susceptible to the negative health effects of pollution.⁷ The legacy of racism, income inequality, and marginalization exacerbates these effects. Limited access to essential services like affordable housing, quality healthcare, clean water, and reliable home heating and energy, combined with obstacles to social and economic mobility, increase a community's susceptibility to environmental harms and toxins.⁸

While existing environmental laws at the state and federal level often assess the potential impacts of individual facilities in isolation, the cumulative impacts framework requires an

¹ Rachel Morello-Frosch, et al., "Understanding the Cumulative Impacts of Inequalities in Environmental Health: Implications for Policy," *Health Affairs* (May 2011), at 879, available at <https://www.healthaffairs.org/doi/10.1377/hlthaff.2011.0153>.

² *See, e.g.*, Sarah Penney, et al., "Estimating the Health Impacts of Coal-Fired Power Plants Receiving International Financing," Environmental Defense Fund (2009).

³ California Office of Environmental Health Hazard Assessment, "Cumulative Impacts: Building a Scientific Foundation," 7 (2010), <https://oehha.ca.gov/media/downloads/calenviroscreen/report/cireport123110.pdf>.

⁴ *Id.*

⁵ *Id.* at 7-10.

⁶ Morello-Frosch, et al., *supra*, at 883.

⁷ Morello-Frosch, et al., *supra*, at 882.

⁸ Equitable and Just National Climate Platform, September 2021, <https://www.weact.org/wp-content/uploads/2023/05/Defining-EJ-Community-for-Mandatory-Emissions-Reduction-Policy.pdf>.

assessment of how multiple environmental stressors may interact to create additional environmental and public health burdens for the surrounding community and its residents.⁹ To help address the issue of cumulative impacts in disadvantaged communities, this bill requires the state environmental protection agency¹⁰ to identify the areas most likely to be disproportionately burdened by environmental hazards and to regularly report on the cumulative impacts experienced in the affected communities. By requiring the state environmental protection agency to develop and publish cumulative impact assessments, this bill promotes public awareness, engagement, and advocacy among impacted communities, and increases transparency, accountability, and regulatory focus on the issue of cumulative impacts.

Functions of the Bill

The bill first requires the state environmental protection agency to identify and publish a list of environmental justice areas in the state. Detailed information on the designation of these areas is included below in the section titled “Environmental Justice Area Definition,” but in short, the bill aims to capture the areas that are most likely to be burdened by disproportionate environmental hazards and/or have decreased ability to participate in public decision-making processes that can influence the location of environmental hazards. The bill requires the agency to accept public comments on the composition of this list, regularly update it, and notify relevant local and tribal governments of the designation of areas in their jurisdiction to promote ongoing public awareness and engagement on the issue of cumulative impacts.

In addition to publishing a list of environmental justice areas, the bill also requires the agency to publish an interactive map of all such designated areas on its website. This will enable the public to identify environmental justice areas and view the distribution and density of specific environmental hazards and community exposure points—locations where particularly vulnerable members of the public, such as children, the elderly, and those with underlying medical conditions, are likely to spend time—in relation to those areas. By making this information publicly available in an accessible and interactive format, the agency can improve transparency, engagement, and accountability for impacted communities. Community members will be further empowered to advocate about issues they face by highlighting the aggregate

⁹ U.S. Environmental Protection Agency, Cumulative Impacts Research: Recommendations for EPA’s Office of Research and Development 2 (2022), https://www.epa.gov/system/files/documents/2022-09/Cumulative%20Impacts%20Research%20Final%20Report_FINAL-EPA%20600-R-22-014a.pdf (“Solving longstanding, recalcitrant environmental health problems, including health disparities exacerbated by racial and social injustices, requires an accurate and realistic assessment of the effects from the combined exposures to chemical and non-chemical stressors (i.e., cumulative impacts) that inform decision-making at all levels.”); Amy J. Dunn & George V. Alexeeff, Beyond Risk Assessment: Principles for Assessing Community Impacts, *Int. J. Toxicology* 78-87 (Jan.-Feb. 2010), <https://pubmed.ncbi.nlm.nih.gov/19959838/>.

¹⁰ The bill and this memo both use the generic “state environmental protection agency” to refer to the state agency tasked with overseeing environmental conservation, quality, and protection.

impact of overlapping sources of pollution on public health and quality of life.¹¹ Because the development of an interactive map can be costly, the bill draws from widely available, frequently updated public datasets compiled by the U.S. Census Bureau and permits the state to use an existing mapping tool so long as it includes substantially similar information. The agency is also required to solicit public comments on the map when it is first published and then provide an updated version of the map that addresses these comments.

Although the interactive map will improve public awareness of the disproportionate burdens of pollution in environmental justice areas, this tool is meant to provide baseline information for use in more in-depth research and reporting.¹² To that end, the agency must also compile and publish a cumulative impact report, which will identify a number of environmental hazards that might affect designated environmental justice areas in the state as well as the health effects associated with those hazards. In addition to reporting on air pollution, traffic, and water contamination in environmental justice areas, the bill provides a comprehensive list of polluting facilities that must be included in the report, including waste processing and management facilities, chemical manufacturing facilities, agricultural operations, and a variety of facilities operating pursuant to federal permits that regulate hazardous waste and air and water pollution. The bill also encourages the state environmental protection agency to use its discretion to identify additional sources of pollution that are relevant to local communities for inclusion in the report. For each identified source of pollution, the report must trace potential routes of exposure from the source's pollutants in the affected community.

Public participation and engagement is an integral component of the development of the agency's cumulative impact report. Under the bill, the agency is required to solicit public comments on the subject of cumulative impacts prior to publishing its first report and future iterations. This will allow impacted communities to contribute their perspective during the development of the report and identify areas of concern that may have been otherwise overlooked by the agency. Each comment period is structured to increase community participation through the availability of interpretation and transcription services, as well as multiple opportunities and ways to provide input. Because public input is an integral component of engagement for environmental justice communities, the availability of these opportunities and

¹¹ State Energy and Environmental Impact Center, NYU School of Law, "Expanding AG EJ Practice—A Resource," 9 (2023),

<https://stateimpactcenter.org/files/Expanding-AG-EJ-Practice-%E2%80%94A-Resource.pdf>.

¹² Charles Lee, "Another Game Changer in the Making? Lessons from States Advancing Environmental Justice Through Mapping and Cumulative Impact Strategies," 51 *Environmental Law Reporter* 10676, 10677 (2021) ("First, identifying and prioritizing environmentally burdened and vulnerable communities is a fundamental first step to integrate EJ in government decision-making. While locating areas of high exposure and vulnerability is a critical and necessary first step, merely identifying them is insufficient. Our imperative is to have this information drive decisionmaking"); Kiana Courtney, "#DenyThePermit? A Call for Cumulative Impacts Legislation by Frontline Communities," *Environmental Law & Policy Center*, (Dec. 8, 2021), available at <https://elpc.org/blog/deny-the-permit-a-call-for-cumulative-impacts-legislation-by-frontline-communities>.

instructions for participating in them should be clear to those who may wish to provide comments.

The bill also includes mechanisms to promote engagement with the cumulative impacts resources and accountability for mitigating identified impacts. Within one year of the publication of the initial report, the agency is required to publish a supplemental report making recommendations to address the hazards identified in the report. When the report is updated every four years, the agency is required to explain the actions it has taken to implement the previous report's recommendations and make new recommendations to carry this work forward. If the agency fails to produce or update the list of environmental justice areas, cumulative impact map, or cumulative impact report within the timeframes established by the statute, it is required to publish an explanation for the delay on its website before it may issue or renew permits for the sources of pollution covered by the report. If it does not comply with this requirement, affected members of the public are granted a private right of action to initiate a lawsuit to require the agency to comply with its obligations under the bill. The agency is also required to consider both the map and the report in its decision-making, and either resource may be used as evidence in siting and permitting proceedings, providing a tool for community members and advocates challenging the development or operation of polluting facilities

Environmental Justice Area Definition

This bill uses the term “environmental justice area” to designate areas that are known to experience or are likely to experience disproportionate environmental hazards, as well as communities that may face increased obstacles to participating in public decision-making processes.¹³ Under this bill, research and reporting on the extent of cumulative impacts in these areas is then completed by the state environmental protection agency. The bill's definition of “environmental justice area” is critical to ensuring that the benefits of the bill flow to the communities most likely to be affected by cumulative impacts. To that end, the definition uses four criteria to identify qualifying areas: 1) areas that qualify based on a single demographic factor that is closely tied to increased risk or decreased public participation; 2) areas ranking highly on national indices of susceptibility to environmental pollution; 3) lands of federally recognized tribes; and 4) specially designated areas.

1. Demographics

¹³ The language used in cumulative impacts legislation can vary, but this bill uses the term “environmental justice area” rather than “overburdened” or “disadvantaged community” because it intends to capture communities that are most likely to be affected by cumulative impacts, therefore warranting additional attention in decision-making processes. It does not assume that all communities that meet these criteria are necessarily overburdened or disproportionately impacted by environmental stressors. Similarly, the word “area” is used in place of “community” to acknowledge that the boundaries used by the definition do not necessarily correspond with organic community boundaries and that multiple communities may overlap or intersect within a single qualifying area.

First, an area may be designated as an environmental justice area based on the demographics of its residents, as determined by the most recent U.S. Census or American Community Survey. Communities with more low-income households, households with limited English proficiency, or limited formal education are included, as these demographics correspond to increased vulnerability to environmental hazards¹⁴ or decreased ability to participate in public decision-making processes.¹⁵ Information on these demographics is widely available, regularly updated, and fairly high-resolution, making these neighborhood characteristics well-suited to use in statewide legislation, particularly in jurisdictions that do not have resources to conduct additional data collection.¹⁶

The demographic category also incorporates racial demographics¹⁷ based on the close correlation between race and exposure to environmental hazards.¹⁸ Racial demographics are a significant predictor of the distribution of environmental burdens because of the legacy of racial segregation and discrimination, and the “spatially concentrated disproportionate pollution burdens in communities of color” that increase their risk of exposure to environmental harms.¹⁹ More information about this designation, including an analysis of the potential legal implications of including this factor, is included below in the section titled “Use of race in designation of environmental justice area.”

2. Susceptibility metrics

In addition to the single demographic metrics, the bill includes areas that have been designated as highly susceptible to environmental pollution by the United States Environmental

¹⁴ Lori M. Hunter, “The Spatial Association Between U.S. Immigrant Residential Concentration and Environmental Hazards,” *Int. Migration Rev.* 460 (2000), <https://doi.org/10.2307/2675910>; California Office of Environmental Health Hazard Assessment, “Cumulative Impacts: Building a Scientific Foundation,” 7 (2010), <https://oehha.ca.gov/media/downloads/calenviroscreen/report/cireport123110.pdf>.

¹⁵ Janet A. Phoenix, *Anti-Resilience Factors of Environmental Justice Communities*, in Environmental Justice and Resiliency in an Age of Uncertainty 72, 74 (2022) (“This has the potential to reduce the number of residents in environmental justice communities who are able to interpret what data exists documenting exposures, leaving communities more vulnerable. . . . Reports that are released for public comment may be written in technical language and/or at a high reading level or in language that cannot be understood by affected community members.”).

¹⁶ EPA, *Cumulative Impacts Research*, *supra*, at 31 (“Cumulative impact assessments to inform local and site-specific decisions often need environmental and socioeconomic data at high-resolution temporal and spatial scales, such as the census block or finer. The costs of monitoring equipment and the lack of data collection infrastructure make it challenging to collect reliable data at fine spatial and temporal scales.”).

¹⁷ Although the Census and American Community Survey do not currently include Middle Eastern or North African as a racial status option, it is included in the bill due to the U.S. EEOC’s recent listing of this status and in anticipation of its inclusion in future surveys.

¹⁸ Bullard, R. D., Mohai, P., Saha, R., & Wright, B., *Toxic Wastes and Race at Twenty 1987–2007: Grassroots Struggles to Dismantle Environmental rRacism in the United States* (2007); Anderton, D. L., Anderson, A. B., Oakes, J. M., & Fraser, M. R., *Environmental Equity: The Demographics of Dumping*. *Demography*, 31(2), 229–248 (1994).

¹⁹ Equitable & Just National Climate Platform, *Approaches to Defining Environmental Justice Community for Mandatory Emissions Reduction Policy* (Sept. 2021), <https://www.weact.org/wp-content/uploads/2023/05/Defining-EJ-Community-for-Mandatory-Emissions-Reduction-Policy.pdf>.

Protection Agency’s demographic indices.²⁰ While these indices rely on much of the same demographic data included in the demographic definition, a high overall score on these susceptibility metrics may help to identify additional communities that fall slightly below the demographic thresholds identified but that are nevertheless still at heightened risk of cumulative impacts. As discussed in the section below on the use of race in designating environmental justice areas, the United States Environmental Protection Agency EJSCREEN demographic index relies in part on racial demographics.

3. Tribal land

The designation of lands of federally recognized tribes as “environmental justice areas” serves two purposes. First, it recognizes that Indigenous communities bear a disproportionate share of pollution.²¹ Second, it recognizes the unique status and sovereignty of tribal nations by ensuring that they are included and adequately consulted in decisions impacting their land.

4. Agency approval

Lastly, the state environmental protection agency may designate additional areas as “environmental justice areas” if they are particularly vulnerable to environmental or public health hazards, have a history of disproportionate environmental burdens, or have a diminished capacity for public participation. This category gives the agency some discretion to identify additional areas that may benefit from the designation, and encourages flexibility in recognizing the input of community organizations, residents, and advocates who are closely connected to the issue of cumulative impacts.²² By doing so, it gives communities an opportunity to identify themselves for further consideration and ensures that no overburdened community is categorically excluded from being designated an environmental justice area.

Additional Issues to Consider

Use of race in designation of environmental justice area:

This model bill utilizes racial demographics in its definition of “environmental justice area,” a term that is used to identify areas that are more likely to be burdened by environmental hazards or associated health problems. These demographics are a strong predictor of an area’s

²⁰ U.S. Environmental Protection Agency, EJSCREEN Technical Documentation 24-30 (2022), <https://www.epa.gov/system/files/documents/2023-01/EJScreen%20Technical%20Documentation%20October%202022.pdf>.

²¹ Maggie Li, et al., “Air Pollution in American Indian Versus Non-American Indian Communities, 2000-2018,” 112 *American Journal of Public Health* 615, (2022), <https://doi.org/10.2105/AJPH.2021.306650>.

²² Kiana Courtney, “#DenyThePermit? A Call for Cumulative Impacts Legislation by Frontline Communities,” *Environmental Law & Policy Center*, (Dec. 8, 2021), <https://elpc.org/blog/deny-the-permit-a-call-for-cumulative-impacts-legislation-by-frontline-communities>.

exposure to environmental hazards,²³ making them a particularly salient metric for this bill.²⁴ However, their inclusion in this definition may increase the risk of litigation under state or federal equal protection law, which could delay or completely prevent implementation of the bill. Federal courts in multiple states have recently halted federal programs that contain racial classifications on the grounds that these classifications violate the Constitution’s Equal Protection Clause.²⁵

While the use of race-conscious metrics carries a risk of litigation, legislators might reduce this risk by ensuring that the use of race in their bill is narrowly tailored to achieve a compelling government interest, such as remedying past discrimination.²⁶ The Supreme Court’s recent decision in *Students for Fair Admissions, Inc. v. President and Fellows of Harvard College*²⁷ affirmed this standard for the consideration of race in government decision-making. Legislators wishing to further minimize the risk of an equal protection challenge can modify the definition of “environmental justice area” to eliminate the use of racial demographics. To do so, provision [2.5(a)(ii)] should be removed, as well as the reference to “United States Environmental Protection Agency EJSCREEN demographic index” in [2.5(b)]. Legislators should also consider the extent to which state constitutional law may limit the use of race.

Jurisdictions Implementing Similar Legislation

A number of state and local governments have created similar maps to increase public awareness of environmental justice issues and inform government decision-making. This bill draws in part from provisions of the environmental justice bills passed in New Jersey²⁸ and New York.²⁹ In September 2020, after years of research and activism, environmental justice advocates in New Jersey led the passage of the nation’s first comprehensive environmental justice and cumulative impacts law.³⁰ Information on New Jersey’s identification and mapping of overburdened communities is available [here](#). The following groups, among others, were leading

²³ Letter from Sacoby Wilson, Professor, University of Maryland, to White House Council on Environmental Quality (Apr. 8, 2022), available at https://downloads.regulations.gov/CEQ-2022-0002-0012/attachment_1.pdf.

²⁴ Both New Jersey and New York utilize race-based criteria for identifying impacted communities in their respective environmental justice laws. *See* 13 NJ ST Ch. 1D-158; NY Enviro. Conserv. Law § 75-0111.

²⁵ *See, e.g., Vitolo v. Guzman*, 999 F.3d 353, 360 (6th Cir., 2021) (enjoining a program that prioritized minority-owned businesses, among others, for coronavirus relief grants); *Faust v. Vilsack*, 519 F.Supp.3d 470 (E.D. Wis. 2021) (enjoining a program that provided loan relief to “socially disadvantaged” farmers, a category defined in part based on race).

²⁶ *Adarand Constructors, Inc. v. Peña*, 515 U.S. 200, 227 (1995).

²⁷ 600 U.S. ____ (2023).

²⁸ P.L. 2020, Ch. 92, approved September 18, 2020.

²⁹ 2022 Sess. Law News of N.Y. Ch. 840 (S. 8830); 2023 Sess. Law News of N.Y. Ch. 49 (A. 1286).

³⁰ Environmental Law Monitor, “New Jersey Governor Announces Nation’s First Environmental Justice Regulations,” (Apr. 21, 2023), <https://environmentallawmonitor.com/regulations/new-jersey-governor-announces-nations-first-environmental-justice-regulations/>.

voices behind the legislation: The Ironbound Community Corporation, New Jersey Environmental Justice Alliance, Southward, Environmental Alliance, and Clean Water Action New Jersey.

Information on New York's process for identifying and mapping disadvantaged communities is available [here](#). The passage of New York's environmental justice legislation was the result of the efforts of numerous organizations across the state, co-led by WE ACT for Environmental Justice, South Bronx Unite, and the JustGreen Partnership, along with Clean and Healthy New York, New York Lawyers for the Public Interest, Riverkeeper, Sierra Club Atlantic Chapter, New York State American Academy of Pediatrics, Environmental Advocates NY, Moms for a Nontoxic New York, Earthjustice, 350 Brooklyn/City Action, and others.