What You Don't Know Can Hurt You: The Importance of Information in the Battle Against Environmental Class and Racial Discrimination

Browne C. Lewis
I personally know of the devastating impact environmental pollution can have on a community. I grew up in a small rural community. The community's population was mostly black and Native American. My house was situated in front of a bayou that ran through the center of the town. My fondest childhood memories are of swimming and fishing in the bayou and picking blackberries on the shore. I was even baptized in the bayou. When I was a senior in high school, the village was incorporated into a town. Most people in the village considered the incorporation progress. At that time, no one knew that the village's new status would come with a high price. During my second year at college, the town decided to supply sewage services to the town residents and those in the surrounding areas in order to bring in needed revenue and jobs. Without the landowners' knowledge or permission, the town installed a system that dumped raw sewage into the bayou. When I came home the summer after my sophomore year, I could not believe the condition of the bayou. The sewage treatment facility employed several members of the community. In addition, the residents had grown accustomed to having running water and indoor plumbing, so they did not want the facility put out of operation. As a consequence, the bayou became even more polluted.

*Assistant Professor of Law, University of Detroit Mercy. B.A., Grambling State University, J.D., University of Minnesota, M.P.A., Hubert H. Humphrey Institute of Public Affairs, L.L.M., Energy & Environmental Law, University of Houston. Special thanks to Professor Robin Magee, Professor Pamela Wilkins, Barbara White, Regina Martin, and Urooj Usman.
People across the country have witnessed the quality of their local environment decline in the name of progress. Low-income and minority persons have observed the disproportionate placement of environmental hazards in their communities. That disparity has partially resulted from environmental discrimination based upon class and race. Acknowledging unequal treatment of low-income and minority persons has led to the development of the concept of “environmental justice.”


In the environmental justice area, the term “minority” is used to refer to the following four major racial and ethnic groups: African-Americans, American Indians or Alaska Natives, Asians or Pacific Islanders, and Hispanics. CEQ GUIDANCE, supra note 1, at 25. In the context of this Article, “minority populations” broadly refers to all persons except non-Hispanic whites. U.S. GEN. ACCT. OFFICE, GAO/RCED-95-84, REPORT TO CONGRESSIONAL REQUESTERS: HAZARDOUS AND NONHAZARDOUS WASTE: DEMOGRAPHICS OF PEOPLE LIVING NEAR WASTE FACILITIES 45 (1995), available at http://161.203.16.4/t2pbat1/154854.pdf [hereinafter GAO HAZARDOUS AND NONHAZARDOUS WASTE].

The U.S. Environmental Protection Agency (“EPA”) defines “environmental justice” as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies. 

the term . . . adopted" to refer to the solution for environmental discrimination. The terms "environmental racism" and "environmental equity" have also been used in discussions regarding the disproportionate placement of environmental hazards in low-income and minority communities. This Article will use the term "environmental discrimination" to refer to the practice of disproportionately locating environmental hazards in low-income and minority communities.

The premise of this Article is that, in order to effectively combat environmental discrimination, people must have access
to quality information. Information may be used as a remedial measure. This Article is divided into two main parts. Part I briefly discusses evidence of environmental discrimination. Part II addresses how low-income and minority persons can use the National Environmental Policy Act ("NEPA") as an information-gathering tool. The information obtained through the NEPA process can be used in two primary ways. First, the information can be used to educate community members so they can successfully oppose projects that have the potential to adversely impact the quality of the environment. Second, advocates can use the information to argue that a hazardous project should be removed from the community.

I. THE PROBLEM

Environmental discrimination has been thoroughly documented in numerous law review articles. The crux of the problem is distribution inequity. Persons living in low-income and minority communities are forced to bear the burdens caused by environmental hazards while persons living in whiter and more affluent communities "receive the bulk of the benefits." Consequently, this Article will only briefly discuss a few of the studies that identified the problem. One of the first incidents that placed environmental discrimination on the national radar was a 1982 protest in Warren County, North Carolina.\(^7\) In 1983, in response to the Warren County protest, the U.S. General Accounting Office ("GAO") conducted a study to determine the extent of environmental discrimination in America.\(^9\) The agency was charged with

---

\(^7\) See *Environmental Injustices, Political Struggles: Race, Class and the Environment* 35 (David E. Camacho ed., 1998) [hereinafter *Environmental Injustices*].


\(^9\) As a part of the information-gathering process, GAO staff "met . . . with an official of the Southern Christian Leadership Conference to discuss racial issues surrounding the Warren County [PCB landfill] site selection." U.S.
discovering if the race and income levels of the persons in a community influenced the decision of whether or not to place an environmental hazard in the area.\(^\text{10}\) During the course of its investigation, the agency evaluated four landfills containing hazardous waste located in EPA's Region IV.\(^\text{11}\) GAO discovered that three of the four commercial hazardous waste facilities in the region were located in predominately African-American communities and the fourth was in a low-income community.\(^\text{12}\) The agency also concluded that more than twenty-six percent of the population in those impacted communities lived below the poverty line and the majority of the persons living in poverty were black.\(^\text{13}\) In conclusion, GAO identified a strong correlation between the decisions to site offsite, hazardous-waste landfills and the race and socioeconomic status of the surrounding communities.\(^\text{14}\)

In 1987, the United Church of Christ ("UCC") conducted a national study.\(^\text{15}\) The UCC study was more comprehensive than the GAO report because the analysts focused not only on the Region IV states, but on the entire United States.\(^\text{16}\) The UCC study reported that the number of hazardous waste facilities in a community depended upon the racial make-up of the community.

\(^{10}\) Id. at 1.


\(^{12}\) See infra Appendix A for tabular information.

\(^{13}\) GAO REPORT, supra note 9, at 1.

\(^{14}\) As a part of the study, the UCC examined RCRA commercial hazardous waste facilities across the country. GAO HAZARDOUS AND NONHAZARDOUS WASTE, supra note 2, at 34 (citing COMM'N FOR RACIAL JUSTICE, UNITED CHURCH OF CHRIST, TOXIC WASTES AND RACE IN THE UNITED STATES: A NATIONAL REPORT ON THE RACIAL AND SOCIO-ECONOMIC CHARACTERISTICS OF COMMUNITIES WITH HAZARDOUS WASTE SITES (1987) [hereinafter UCC REPORT]).

\(^{15}\) Frye, supra note 5, at 59.
For example, a community with twice as many minorities was more likely to have at least one hazardous waste facility.\textsuperscript{17} The study also reported that communities with two or more facilities had more than three times the population of people of color as communities without such sites.\textsuperscript{18} As a result, the UCC study concluded that race, rather than socioeconomic status, was the predominant factor related to the presence of hazardous waste facilities in residential communities throughout the United States.\textsuperscript{19}

The GAO and UCC reports spawned considerable debate about the inequitable distribution of environmental hazards. In 1990, a group of scholars, later referred to as the Michigan Group, met at the University of Michigan to discuss environmental justice issues.\textsuperscript{20} The Michigan Group presented the data compiled at the conference to then EPA Administrator William Reilly in a series of meetings and urged the agency to undertake an internal investigation of the matter.\textsuperscript{21}

The \textit{National Law Journal} ("NLJ") published an important study in September 1992.\textsuperscript{22} NLJ reviewed every environmental


\textsuperscript{18} \textit{Id.}


lawsuit completed in the previous seven years and every residential toxic waste site in the Superfund program. It determined that EPA, in its remediation of hazardous waste sites and its pursuit of polluters, discriminated against minority communities.

The recognition of the problem of environmental discrimination has sparked a thorough debate. Environmental justice advocates have pushed for recognition of the fact that members of low-income and minority communities should have "(1) the right to participate in the regulatory process, and (2) the right to live free from pollution." The steps that have been taken to address the disproportionate placement of environmental hazards

---


24 Eileen Gauna, Federal Environmental Citizen Provisions: Obstacles and Incentives on the Road to Environmental Justice, 22 ECOLOGY L.Q. 1, 18 (1995) (citation omitted). Specifically, NLJ reported that (1) EPA imposed lower penalties against environmental law violators in minority communities than in largely white communities (Gauna, supra note 24, at 18); (2) "under the Superfund... program, it took twenty percent longer in minority areas to have the EPA place a [abandoned hazardous waste] site on the national priority action list," triggering technical and legal action, than in largely white communities (Bradford C. Mank, Environmental Justice and Discriminatory Siting: Risk Based Representation and Equitable Compensation, 56 OHIO ST. L.J. 329, 338-39 (1995) (citations omitted)); (3) EPA chooses "containment," the less popular remediation method at hazardous waste dump sites, seven percent more frequently in minority communities, and chooses the preferred, permanent "treatment" twenty-two percent more often at sites in largely white communities (Omar Saleem, Overcoming Environmental Discrimination: The Need for a Disparate Impact Test and Improved Notice Requirements in Facility Siting Decisions, 19 COLUM. J. ENVTL. L. 211, 219 (1994) (citation omitted); and (4) "the racial imbalance... often occurs regardless of whether the community is wealthy or poor" (Mariaea Ramirez Fisher, On the Road From Environmental Racism to Environmental Justice, 5 VILL. ENVTL. L.J. 449, 461 (1994) (citation omitted)).

25 ENVIRONMENTAL INJUSTICES, supra note 7, at 37. In 1991, at the First National People of Color Environmental Leadership Summit, advocates adopted the seventeen "Principles of Environmental Justice" to demand rights. Id.
in low-income and minority communities have only been marginally successful. Consequently, legal scholars and persons seeking to combat environmental discrimination have suggested different solutions to the problem. The proposed solutions tend to be as varied as the underlying motives and interests of those individuals or organizations that put them forth. Part II of this Article argues for the use of NEPA's information-gathering mandates as a weapon in the battle against environmental discrimination.

II. NATIONAL ENVIRONMENTAL POLICY ACT: INFORMATION AS A PREVENTIVE MEASURE

If residents allow a facility to be placed in their community, they are usually forced to live with the negative consequences of their decision. Even if a facility pollutes the environment, it is difficult to successfully petition the judiciary or governing body to close it because the owner is usually willing to spend a substantial amount of money to protect his or her investment. In addition, members of impacted communities often depend on the facility for jobs and other economic benefits. This dependency makes it hard to organize opposition against the environmental hazard. Attempts by groups of residents of low-income and minority

---

26 Some attempts that have been made to remedy the problem of environmental discrimination include President Clinton's issuance of Executive Order 12,898, EPA's adoption of an environmental justice strategy, and Congress' attempt to pass an Environmental Justice Act. See Anne K. No, Environmental Justice: Concentration on Education and Public Participation As an Alternative Solution to Legislation, 20 WM. & MARY ENVTL. L. & POL'Y REV. 373, 384-91 (1996); see also R. Gregory Roberts, Environmental Justice and Community Empowerment: Learning From the Civil Rights Movement, 48 AM. U. L. REV. 229 (1998) (critiquing strategies adopted to eliminate environmental discrimination).
28 Id. at 135.
29 Id.
30 In this Article, the term "environmental hazards" refers to projects that pollute the environment and projects that have the potential to pollute.
communities to remove environmental hazards from their communities are usually unsuccessful.\textsuperscript{31} Furthermore, members of affected communities have been unable to get the courts to grant them any type of significant monetary damages.\textsuperscript{32} Advocates against environmental discrimination therefore need to launch a strong offensive attack to prevent environmental hazards from being placed in at-risk communities. The cornerstone of that attack is information. Once advocates arm residents with the necessary information, they may be able to prevent the placement of environmental hazards in their communities. An intelligence gathering component is therefore essential to combat environmental discrimination.

A primary cause of disproportionate placement of environmental hazards in low-income and minority communities is residents' lack of information about potential risks.\textsuperscript{33} This consistent lack of information often results in an inequitable distribution of environmental hazards in low-income and minority communities.\textsuperscript{34} For example, to promote a project, its sponsor usually emphasizes its economic advantages without mentioning its possible environmental burdens on the community.\textsuperscript{35} The decision-makers, especially

\textsuperscript{31}See Colopy, supra note 27, at 136-37.
\textsuperscript{33}See LUKE W. COLE & SHEILA R. FOSTER, FROM THE GROUND UP: ENVIRONMENTAL RACISM AND THE RISE OF THE ENVIRONMENTAL JUSTICE MOVEMENT 109 (2001) (stating that "[l]ow-income and communities of color enter the decision-making process with fewer resources than other interests in the decision-making process. These communities have less time, less information, and less specialized knowledge about the legal, technical and economic issues involved.").
\textsuperscript{34}Boyle, supra note 19, at 977-78 (stating that "[p]rivileged communities are better able to advance their interests because they have more money, superior information and better access to resources and legislative decisionmakers than the disempowered group") (citations omitted) (emphphasis added).
\textsuperscript{35}Northern, supra note 17, at 497 (stating that "[t]he mere presence of an environmentally burdensome enterprise, as well as the threat or perceived
elected officials, often welcome a proposed project as a way to raise revenues for schools, roads, and other public services.\textsuperscript{36} Furthermore, when a permitting body conducts public hearings on a proposed project, promises of new jobs and other economic benefits frequently sway community members.\textsuperscript{37} Consequently, they typically actively or passively support the placement of the environmental hazard in their community.\textsuperscript{38}

To ensure that residents make informed decisions about the desirability of locating an environmental hazard in their community, permitting bodies should require project proponents to fully disclose all relevant information.\textsuperscript{39} Society has embraced the notion of informed consent in several areas of the law, including American tort law.\textsuperscript{40} In medical malpractice cases, for example, the judiciary will not attribute consent to a person that has not been given full access to all of the necessary information.\textsuperscript{41}

The cost to the industry of providing environmental information to the members of the community is low compared to the benefit the community would receive by having access to the information. As a part of implementing projects, industries already collect substantial data. It would thus be just as easy for the

\textsuperscript{36} See Colopy, \textit{supra} note 27, at 135-36; Evans, \textit{supra} note 20, at 1258-59.

\textsuperscript{37} See Valerie P. Mahoney, Note, \textit{Environmental Justice: From Partial Victories To Complete Solutions}, 21 \textit{CARDozo L. REV.} 361, 367 (1999). \textit{See also} Boyle, \textit{supra} note 19, at 978 (stating that “[t]he more powerful group may also provide selected information to the targeted disempowered group in order to convince them that the detrimental impact will be minimal and that the targeted group will realize benefits as well”).

\textsuperscript{38} Mahoney, \textit{supra} note 37, at 366-67.


\textsuperscript{40} See \textit{Cruzan v. Dir., Missouri Dep't. of Health}, 497 U.S. 261, 269 (1990) (stating that “[t]he informed consent doctrine has become firmly entrenched in American tort law”) (citation omitted).

\textsuperscript{41} \textit{See generally} Eady v. Lansford, 92 S.W.3d 57 (Ark. 2002).
industry to collect environmental data as it gathers economic information. If community members knew that the true price of new jobs was exposure to dangerous materials, they might be less willing to take on the burden of an environmental hazard. One legal tool advocates can use to compel the permitting body and the industry to provide the community with complete information about the proposed project, including information about the environmental consequences of the project, is NEPA.\textsuperscript{42} The application of NEPA can help the public make informed decisions about whether or not to oppose state or local projects.\textsuperscript{43} It also implicates Executive Order 12,898, which requires consideration of environmental justice issues.\textsuperscript{44}

A. Brief Overview of NEPA

In enacting NEPA, Congress intended to “declare[] a broad national commitment to protecting and promoting environmental quality.”\textsuperscript{45} NEPA’s mandates advance this national policy in two key ways. First, by requiring an agency to take the steps enumerated in the statute, Congress sought to ensure that, when considering a project’s approval, the agency “take[s] a ‘hard look’ at ... the project’s environmental effects.”\textsuperscript{46} To meet this “hard look” requirement, the agency must gather opinions from both its own and independent experts, carefully analyze the scientific data, and react to all genuine questions that have been put forth.\textsuperscript{47} Second, Congress intended NEPA’s stipulations to guarantee that the


\textsuperscript{43} Nat’l Parks & Conservation Ass’n v. United States Dep’t of Transp., 222 F.3d 677, 680 (9th Cir. 2000) (approving EIS process if it fostered informed decision-making and public participation) (internal citation omitted).


\textsuperscript{46} Hughes River Watershed Conservancy v. Glickman (Hughes River I), 81 F.3d 437, 443 (4th Cir. 1996) (internal citation omitted).

\textsuperscript{47} Hughes River Watershed Conservancy v. Johnson (Hughes River II), 165 F.3d 283, 288 (4th Cir. 1999) (internal citation omitted).
agency made relevant information regarding the proposed project available to members of the public.\textsuperscript{48} The purpose of this requirement was to allow members of the public to actively participate in the decision-making process and in the implementation of the decision.\textsuperscript{49}

NEPA is a procedural statute that places no substantive requirements on federal agencies.\textsuperscript{50} According to the U.S. Supreme Court, the mandates of NEPA prohibit federal agencies from making uninformed decisions about the environmental consequences of “major Federal actions.”\textsuperscript{51} The statute does not dictate a specific result; it only explains the procedure necessary to allow agencies to make informed decisions about the environmental feasibility of proposed projects.\textsuperscript{52} To that end, “NEPA requires a balancing of environmental costs and economic and technical benefits.”\textsuperscript{53}

Under the provisions of the statute, if an agency does not know if its proposed action is a “major Federal action” that will impact “the quality of the human environment,” the agency must prepare an Environmental Assessment (“EA”).\textsuperscript{54} The EA is designed to help the agency determine if it needs to prepare an Environmental Impact Statement (“EIS”).\textsuperscript{55} “The EA is [meant to be] a ‘concise public document.’”\textsuperscript{56} The major purpose of the EA is

\textsuperscript{48} The Council for Environmental Quality (“CEQ”) regulations state that “NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. . . .” 40 C.F.R. § 1500.1(b).

\textsuperscript{49} Id.

\textsuperscript{50} Morris County Trust for Historic Pres. v. Pierce, 714 F.2d 271, 274-75 (3d Cir. 1983) (internal citations omitted).

\textsuperscript{51} Robertson, 490 U.S. at 348.

\textsuperscript{52} Id. at 350-51.


\textsuperscript{56} Fund for Animals, 283 F. Supp. 2d at 427 (quoting 40 C.F.R. § 1508.9(a)(1) (2003)).
to provide the agency with enough evidence so that it can determine the level of impact the proposed action will have on the environment. To that end, the EA must discuss "the need for the proposed action, alternatives to the proposed action, "the environmental impacts of the proposed action and [the] alternatives," and the "agencies and persons consulted." As a result of this process, the agency must issue a Finding of No Significant Impact ("FONSI") if it determines that the proposed action does not have the potential to substantially impact the quality of the environment. In the alternative, if the agency concludes that the proposed action might have a significant impact on environmental quality, it must issue a decision stating its intent to prepare the necessary EIS.

The EIS, "a detailed statement by the responsible official" prepared for "every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment," is a fundamental feature of NEPA and perhaps the cornerstone of NEPA's requirements. The statute requires federal agencies to prepare an EIS prior to taking any "major Federal actions significantly affecting the quality of the human environment." An EIS must address

(i) the environmental impact of the proposed action;
(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented; (iii) alternatives to the proposed action; (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and (v) any irreversible and

---

55 Id. See also 42 U.S.C. § 4332(2)(C) (2000).
56 40 C.F.R. § 1508.9(b) (2003).
58 See 40 C.F.R. §§ 1508.9(a)(1), 1508.13 (2003).
irretrievable commitments of resources which would be involved in the proposed action should it be implemented.63

As a part of the EIS process, the agency must make a full disclosure of its evaluation.64 The purpose of the disclosure requirement is two-fold. Full disclosure of the relevant information enables the agency to prove that it has made the required assessment. In addition, the interested parties are made aware of the probable environmental consequences of the proposed project.65 After receiving the information, the public will have the opportunity to weigh the proposed project's benefits against its environmental costs.66 The need for this type of candor is especially essential when the proposed project is to be placed in a low-income or minority community that is already heavily saturated with environmental hazards. NEPA's EIS requirement attempts to guarantee the credibility of the agency's decision-making process by insisting that the agency address the arguments put forth by the opponents of the proposed project.67 In order to launch viable objections to a proposed project, members of low-income and minority communities must have accurate information. Once those constituents are sufficiently informed about all aspects of the proposed project, they will be able to launch a campaign to

65 CEQ regulations state that "NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." 40 C.F.R. § 1500(1)(b) (2003).
ensure that the agency seriously considers their concerns. As a consequence of the process, the agency may decide to forego the implementation of the project or, at the very least, take steps to modify the project to accommodate the concerns of the residents.

B. NEPA and Environmental Justice

The language of NEPA does not contemplate an analysis of environmental justice issues. Nevertheless, its application will assist members of low-income and minority communities because the government has acknowledged that environmental justice issues are relevant to the statute’s implementation. Consequently, President Clinton took actions to ensure that the application of NEPA to a situation triggered the mandates of Executive Order 12,898. In the early 1990s, the Executive branch, including the White House, the Council for Environmental Quality (“CEQ”), and EPA, took steps to ensure that NEPA could be used to address the issue of environmental discrimination.

1. Presidential Action

Public outrage prompted a response from the federal government on the issue of environmental discrimination. On February 11, 1994, President Clinton signed an executive order addressing environmental discrimination. The Order required federal agencies to develop strategies to combat and prevent environmental inequities. The Order emphasized the need for federal agencies to take a stance against all types of discrimination. To that end, it

68 The CEQ stated that “[e]nvironmental justice issues may arise at any step of the NEPA process and agencies should consider these issues at each and every step of the process, as appropriate.” CEQ GUIDANCE, supra note 1, at 8.
69 Calloway & Ferguson, supra note 64, at 1163-67 (explaining the environmental justice analysis mandated by the Executive Order).
70 See Exec. Order No. 12,898, supra note 44.
required federal agencies to conduct their activities in a manner that was nondiscriminatory.\textsuperscript{72}

Executive Order 12,898 states, in pertinent part, that:

\begin{quote}
[t]o the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations . . . .\textsuperscript{73}
\end{quote}

The same day that he issued Executive Order 12,898, President Clinton submitted a memorandum to the heads of all federal departments and agencies setting forth the three reasons the order was executed.\textsuperscript{74} By publishing the Order, Clinton wanted "to focus Federal attention on environmental and human health conditions in minority communities and low-income communities with the goal of achieving environmental justice."\textsuperscript{75} Additionally,

\textsuperscript{72}The Executive Order states that
[\textit{e}ach Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.\textit{Exec. Order No. 12,898, supra note 44. See also Lieutenant Commander William J. Dunaway, JAGC, USN, Eco-Justice and the Military in Indian Country: The Synergy Between Environmental Justice and the Federal Trust Doctrine, 49 NAVAL L. REV. 160, 166 (2002).}

\textsuperscript{73}\textit{Exec. Order No. 12,898, supra note 44.}

\textsuperscript{74}William Clinton, \textit{Memorandum for the Heads of All Departments and Agencies} (Feb. 11, 1994), \textit{available at http://www.epa.gov/compliance/resources/polices/ej/clinton_memo_12898.pdf.}

\textsuperscript{75}\textit{Id.}
Clinton hoped his issuing the Order would advance the goal of “non-discrimination in Federal programs substantially affecting human health and the environment.”\textsuperscript{6} Clinton’s final purpose in putting forth the Executive Order was “to provide minority communities and low-income communities access to public information on . . . matters relating to human health or the environment” as well as the opportunity to participate in the decision-making process.\textsuperscript{7}

President Clinton’s memorandum highlighted six key actions federal agencies must perform to fulfill the objectives of the Executive Order. Recognizing the importance of NEPA’s role in protecting the quality of the environment, Clinton specified three measures that were relevant to NEPA-related activities. The actions authorized in the memorandum were as follows:

In accordance with Title VI of the Civil rights Act of 1964, each Federal agency shall ensure that all programs or activities receiving Federal financial assistance that affect human health or the environment do not directly, or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin. Each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. section #321 et. seq. Mitigation measures outlined or analyzed in an environmental assessment, environmental impact statement, or record of decision, whenever feasible, should address significant and adverse environmental effects of proposed Federal actions on minority communities and low-income communities.

\textsuperscript{6} Id.
\textsuperscript{7} Id.
Each Federal agency shall provide opportunities for community input in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of meetings, crucial documents, and notices. . . .

Each Federal agency shall ensure that the public, including minority communities and low-income communities, has adequate access to public information relating to human health or environmental planning, regulations, and enforcement when required under the Freedom of Information Act, 5 U.S.C. section 552, the Sunshine Act, 5 U.S.C. section 552h, and the Emergency-Planning and Community Right-to-Know Act, 42 U.S.C. section 11044.78

The Clinton administration's strong stance against environmental discrimination gave low-income and minority persons some hope for the future. Nonetheless, according to the language of Executive Order 12,898, its implementation is not subject to judicial review and does not create a private right of action.79 Therefore, despite the Clinton administration's good intentions, victims of environmental discrimination have been unable to rely upon the Executive Order to obtain relief in the courts. However, the Order does require federal agencies to consider the environmental justice aspects of proposed major federal actions.80 Low-income and minority persons can also take comfort in the fact that federal agencies have demonstrated a willingness to comply with the mandates of the Executive Order and consider environmental justice issues in their EISs.81

---

78 Id.
79 The language of the Order specifically precludes judicial review. It states, in pertinent part, that it “shall not be construed to create any right to judicial review.” Sur Contra La Contaminacion v. EPA, 202 F.3d at 447; see also One Thousand Friends of Iowa v. Mineta, 250 F. Supp. 2d 1075, 1084-85 (S.D. Iowa 2002) (discussing how, as part of its environmental review process, the Federal
The purpose of both the public participation provision included in Executive Order 12,898 and the memorandum associated with it is to “ensure that there is adequate and effective communication between federal decision makers and affected low-income communities and minority communities.” That goal is in harmony with the NEPA mandate to involve members of the public in the process.

2. CEQ Action

In Title II of NEPA, Congress established the CEQ within the Executive Office of the President, to oversee the administration of the statute. The agency received additional responsibilities as a consequence of the Environmental Quality Improvement Act of 1970. CEQ has several statutory functions, including gathering information and advising the President on environmental issues. In 1970, the President issued an executive order giving CEQ the authority to administer federal programs addressing

---

82 The Executive Order states, in § 5-5(a), that “[t]he public may submit recommendations to Federal agencies relating to the incorporation of environmental justice principles into Federal agency programs or policies. Each Federal agency shall convey such recommendations to the Working Group” and, in § 5-5(d), that “[t]he Working Group shall hold public meetings, as appropriate, for the purpose of fact-finding, receiving public comments, and conducting inquiries concerning environmental justice. The Working Group shall prepare for public review a summary of the comments and recommendations discussed at the public meetings.” Exec. Order No. 12,898, supra note 44.

83 Id.


86 Section 204 of NEPA details the “[d]uties and functions” of the CEQ. 42 U.S.C. § 4344 (2000).
environmental growth and to issue guidelines regulating the preparation of EISs. 87

CEQ has recognized that it is important for federal agencies to focus on environmental justice issues as a part of their compliance with NEPA. CEQ, therefore, issued a guidance document to offer agencies suggestions regarding the integration of "environmental justice concerns" into the NEPA process. 88 In its report, CEQ acknowledged that several of the goals set forth in NEPA indicate that the achievement of environmental justice is consistent with the purposes and the policies of the statute. 89 According to the CEQ report, these goals include the following:

to "assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings", 90 to "attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences"; 91 to "preserve important historic, cultural, and natural aspects of our natural heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice," 92 and to "achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities." 93

To help federal agencies focus on environmental justice issues, CEQ enumerated six principles to provide general guidance. 94 CEQ

88 CEQ GUIDANCE, supra note 1, at 1; see also Dunaway, supra note 72, at 168-70.
89 CEQ GUIDANCE, supra note 1, at 7 (citing 42 U.S.C. §4331(b) (2000)).
90 Id. (quoting 42 U.S.C. §4331(b)(2) (2000)).
91 Id. (quoting 42 U.S.C. §4331(b)(3) (2000)).
92 Id. (quoting 42 U.S.C. §4331(b)(4) (2000)).
93 Id. (quoting 42 U.S.C. §4331(b)(5) (2000)).
94 See CEQ GUIDANCE, supra note 1, at 10-16 (discussing how to incorporate environmental justice in specific phases of the NEPA process).
used the guidance document to emphasize the importance of identifying the population that will be impacted by the proposed project and evaluating the level of impact that the population will feel if the proposed project is implemented.

In accordance with the first principle, agencies should determine if the area that will be affected by the proposed project contains “minority populations, low-income populations, or Indian tribes,” and if those persons will be disproportionately and adversely impacted by the proposed project.\textsuperscript{95} To satisfy the second principle, the agencies should review pertinent “public-health . . . and industry data” to determine if there is a possibility that the affected population will be exposed to “multiple or cumulative . . . environmental hazards” and if the affected population has suffered historic patterns of exposure to environmental hazards.\textsuperscript{96} The third principle suggests that the agencies accept that the impacts of the proposed project may be magnified by “interrelated cultural, social, occupational, historical, or economic factors,” including the “physical sensitivity of the community or population to particular impacts; the effect of any disruption on the community structure associated with the proposed action; and the nature and degree of impact on the physical and social structure of the community.”\textsuperscript{97}

In the guidance document, CEQ makes it clear that agencies should take steps necessary to ensure that members of the public are allowed to participate in the process and that their interests are represented. To that end, the fourth principle of the document encourages agencies to develop policies that promote real participation by members of the public, including eliminating obstacles to public participation,\textsuperscript{98} and conducting “active outreach to affected groups.”\textsuperscript{99} In addition, the fifth principle recommends

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{95} CEQ GUIDANCE, supra note 1, at 8-9.
\item \textsuperscript{96} Id. at 9.
\item \textsuperscript{97} Id.
\item \textsuperscript{98} One way to remove these types of barriers is to ensure that relevant information is published in both English and any other languages that may be spoken in affected areas. See Exec. Order No. 12,898, supra note 44 (stating that “[e]ach Federal agency may, whenever practicable and appropriate, translate crucial public documents, notices, and hearings relating to human health or the environment for limited English speaking populations”).
\item \textsuperscript{99} CEQ GUIDANCE, supra note 1, at 9.
\end{itemize}
\end{footnotesize}
that agencies ensure that the interests of the entire community are represented as early in the process as possible. Finally, under the sixth principle, agencies are advised that they should solicit representation from federally recognized tribes. Nonetheless, agencies are cautioned that, when they seek to ensure that the tribes participate in the process, they must do so “in a manner that is consistent with the government-to-government relationship between the United States and tribal governments, the federal government’s trust responsibility to federally-recognized tribes, and any treaty rights.”

CEQ uses the guidance document to map out a process to ensure that addressing environmental justice concerns is a primary component of the NEPA process. This commitment to environmental justice will assist low-income and minority persons in their quest to halt the disproportionate placement of environmental hazards in their communities. If all of the principles enumerated in the document are adhered to, proposed projects will be thoroughly screened for possible environmental justice problems. As a result, members of the affected community will be given enough detailed information to make a knowledgeable decision about whether or not to support the location of the proposed project in their community.

3. EPA Action

EPA has taken various steps to address the concerns raised regarding its enforcement activities in low-income and minority communities. For instance, in response to the Michigan Group’s request, EPA Administrator William Reilly established an Environmental Equity Workgroup to analyze data to determine the extent to which environmental exposure and risk impact a specific segment of the population. Reilly requested that the
Workgroup undertake the following four tasks: examine and assess the data suggesting that members of "racial minority and low-income" groups "bear a disproportionate risk" of being exposed to environmental hazards, examine the agency's programs "to identify factors that might give rise to differential risk reduction" and create methods to correct the problem, analyze the agency's "risk assessment and risk communication guidelines with respect to race and income related risks," and review the agency's relationships with various institutions, including its outreach to and discussion with organizations representing the interests of racial minorities and low-income persons, to ensure that EPA was complying with its mission in connection with those populations.  

The Workgroup released its report in May 1992. The report found that there were differences between racial groups in terms of disease and death rates and that the available data indicated disparities in exposure to some environmental pollutants by socio-economic factors and race. According to the report, the data was insufficient to link the two primary findings. It also noted that exposure was not synonymous with health effects. More importantly, the report indicated that environmental and health data were not routinely collected and analyzed by income and race. However, the impact of lead-based paint on minority children is

---

104 EPA, REDUCING RISK, supra note 6, at 1-2.
105 See Gunn, supra note 4, at 101.
106 See EPA, REDUCING RISK, supra note 6, at 4.
107 Id. at 14.
108 President Clinton attempted to address this concern in Executive Order 12,898, section 3-302(b), which states, in pertinent part, that 
[t]o the extent permitted by existing law . . . each Federal agency, whenever practicable and appropriate, shall collect, maintain, and analyze information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income. To the extent practical and appropriate, Federal agencies shall use this information to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations . . . .

Exec. Order No. 12, 898, supra note 44.
well documented. The Workgroup discovered that a significantly higher percentage of African-American children were afflicted with lead poisoning.

In its report, the Workgroup recommended that EPA take several steps to incorporate concerns about environmental justice into its long-term planning and operations. In response to the Workgroup's suggestions, EPA created the Office of Environmental Equity on November 6, 1992, which became the Office on Environmental Justice in 1994. The Office functions as a vehicle for the agency to provide "outreach, technical assistance, and information on environmental pollution affecting racial minorities and low-income communities." To fulfill its commitment to environmental justice, EPA also formed an Executive Steering Committee and a Policy Working Group, and hired a group of environmental justice coordinators to work in its headquarters and in each regional office. As a part of the Executive Steering Committee, deputy-assistant administrators and deputy-regional administrators give direction on strategic planning to ensure that the agency integrates environmental justice issues into its procedures. The goal

---

109 EPA, REDUCING RISK, supra note 6, at 15.
110 See id. at 15. This fact has been discussed in several reports and studies. See Jane Schukoke, The Evolving Paradigm of Law On Lead-Based Paint: From Code Violation To Environmental Hazard, 45 S.C. L. REV. 511, 516 (1994) (contending that "a disproportionately high number of ethnic minority children live in poverty, in dilapidated housing, and are poisoned by lead paint") (quoting Karen L. Florini et al., Legacy Of Lead: America's Continuing Epidemic Of Childhood Lead Poisoning, Envtl. Defense Fund, Appendix 1, Table A-1 (stating that "[i]n 1988, in metropolitan areas of more than one million, approximately 68% of black children and 36% of white children in households earning under $6,000 have blood lead levels in excess of fifteen milligrams per deciliter, in households with income between $6,000 and $14,999, the estimates are 54% of black children and 23% of white children").
111 See id. at 18-20.
113 See GAO HAZARDOUS AND NONHAZARDOUS WASTE, supra note 2, at 9.
of the Policy Working Group is to ensure that the agency develops and coordinates environmental justice projects in its program offices. The environmental justice coordinators’ key job is to provide education and information about environmental justice in their offices and regions. Moreover, EPA used the authority it had under the Federal Advisory Committee Act to establish the National Environmental Justice Advisory Council. The Council’s job is to provide EPA’s Administrator with advice on environmental justice issues. To confront the issue of environmental justice, many of EPA’s offices and regions have developed action plans to deal with environmental justice concerns, conducted research on the issue, and held conferences and workshops to discuss the issue.

To comply with the mandates of Executive Order 12,898, EPA drafted a guidance document to ensure that its staff incorporated environmental justice goals into the preparation of the EISs and EAs that are mandated by NEPA. In the document, EPA is clear that its officials should screen for environmental justice concerns during the initial NEPA screening analysis. The guidance document recommends that, throughout the NEPA process, the analyst address the following two questions: 1) “Does the potentially affected community include minority and/or low-income populations?” and 2) “Are the environmental impacts likely to fall disproportionately on minority and/or low-income members of the community and/or tribal resources?” An affirmative answer to the first question demands that the analyst

\[\begin{align*}
116 & \text{Id.} \\
117 & \text{Id.} \\
118 & 5 \text{ U.S.C. app. } \S 1 (2000). \\
120 & \text{EPA, Environmental Justice, supra note 3.} \\
121 & \text{See EPA GUIDANCE, supra note 3, } \S 3.1 \text{ (listing key components of the EIS process).} \\
122 & \text{Id. } \S 1.0 \\
123 & \text{Id. } \S 3.2.1. \\
124 & \text{Id. (citation omitted).}
\end{align*}\]
perform community outreach to encourage members of the low-income and minority populations to participate in the NEPA process. In addition, the analyst should be sensitive to the possibility that those populations may be exposed to cumulative environmental effects if the proposed project is implemented.\textsuperscript{125} After receiving a positive response to the second question, the analyst should conduct community outreach to members of those populations and compare the potential impacts on the majority population to the potential impacts on the low-income and minority populations.\textsuperscript{126}

The importance of public participation in the NEPA process is a recurring theme of the guidance document.\textsuperscript{127} EPA recognizes that public participation is a critical component of an agency's plan to incorporate environmental justice considerations into its NEPA actions. The role of public participation in the NEPA process is two-fold. First, adequate public participation improves the quality of an agency's analyses when it prepares EAs and EISs. Public participation will also assist EPA in ensuring that potentially affected persons are not ignored and excluded from the process.\textsuperscript{128} This safeguard is especially important when dealing with low-income and minority persons who have traditionally been omitted from the decision-making process. EPA envisions a NEPA procedure that involves two-way communication. Through that process, an agency would collect information, comments, and advice from the public and distribute information on possible methods, analyses, and decisions to the communities.\textsuperscript{129}

NEPA is an important weapon in the war against environmental discrimination because its mandatory process provides crucial information regarding all aspects of the proposed project or activity. The members of the community have the right to review that information. Consequently, both EPA regulations and CEQ regulations specify the manner in which the public should

\begin{thebibliography}{99}
\bibitem{125} Id.
\bibitem{126} Id.
\bibitem{127} See EPA GUIDANCE, supra note 3, § 4.1 (discussing public participation under the NEPA process).
\bibitem{128} Id. § 4.0
\bibitem{129} Id.
\end{thebibliography}
be allowed to review draft and final EISs. EPA regulations require at least one public meeting on all draft EISs and, to ensure maximum public attendance, EPA usually announces the meetings in the Federal Register and in local newspapers. Additionally, EPA regulations require that, as a part of the NEPA process, the agency obtain comments and information from interested parties. The following section examines the contexts in which NEPA has been applied to projects that may potentially affect the environment.

C. Current Interpretation of NEPA

Persons filing environmental discrimination claims must recognize the usefulness of NEPA. Its process requires the disclosure of critical information regarding the proposed project or activity. Nonetheless, the environmental justice requirements of the Executive Order only come into play if NEPA applies to the situation. Therefore, in order for persons combating environmental discrimination to take full advantage of the Order’s protection, they must be able to convince a court that NEPA applies to the proposed action.

The information provided by the NEPA process can be a significant weapon in the arsenal of individuals combating environmental discrimination. The information gathered through the EIS process can be used by opponents of the project to prevent it from being placed in the community. Moreover, it may also be used to prove that the project should be removed from the community and that community members should be compensated for any damages they suffered as a consequence of the environmental hazard.

Nonetheless, the utility of NEPA is limited because the statute only applies to “major Federal actions” and most of the decisions to place environmentally unfriendly projects in low-income and

130 40 C.F.R. § 6.400(c) (2003).
131 EPA GUIDANCE, supra note 3, § 4.2.
132 Inviting Comments, 40 C.F.R. § 1503.1 (a)(4) (2003) (stating that parties, such as an agency, must solicit comments from interested federal, tribal, state, and local agencies as well as the public).
minority neighborhoods are made by state and local agencies pursuant to the police power. Furthermore, a substantial number of the actors seeking to place environmental hazards in low-income and minority neighborhoods are private companies acting independently or in conjunction with the government. Persons representing state, local, or private entities will argue that NEPA does not apply to their proposed projects. Because of the perceived unfairness, courts have recognized the need to interpret the scope of NEPA's application broadly. For instance, courts have noted that there can be a "major federal action" when the primary actors are not federal agencies, but state or local governments or private parties. Although NEPA's mandates apply exclusively to federal agencies engaging in federal activities, it is well-settled that "federal involvement in a nonfederal project may be sufficient to 'federalize' the project for purposes of NEPA." There is no consensus among federal courts about the "amount of federal involvement necessary to trigger the applicability of NEPA." One court stated that "[t]here are no clear standards for defining the point at which federal participation transforms a state

---

133 The placement of certain type of uses is usually determined by zoning ordinances. The authority to regulate land use is derived from the police power ("the power of government to protect health, safety, welfare, and morals"). The state government holds the police power. State legislatures have passed enabling statutes to delegate zoning power to local governmental agencies. JESSE DUKEMINIER & JAMES E. KRIER, THE STRUCTURE OF AUTHORITY UNDERLYING ZONING IN PROPERTY 971 (5th ed. 2002); see also Tessa Meyer Santiago, An Ounce of Preemption is Worth a Pound of Cure: State Local Siting Authority As a Means for Achieving Environmental Equity, 21 VA. ENVTL. L.J. 71, 84-86 (2002).


135 Alaska v. Andrus, 591 F.2d 537, 540 (9th Cir. 1979) (internal citation omitted).


137 Village of Los Ranchos De Albuquerque v. Barnhart, 906 F.2d 1477, 1480 (10th Cir. 1990).
or local project into major federal action.\textsuperscript{138} Nonetheless, a project that is funded with federal money is usually classified as "a major federal action."\textsuperscript{139} For example, CEQ's regulations have defined "major Federal action" to include "projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies.\textsuperscript{140} According to at least one court, "significant federal funding turns what would otherwise be a local project into a major federal action."\textsuperscript{141}

The Andrus court noted that "[e]ven when federal funding is absent, some courts find major federal actions when federal agencies issue permits, approve plans, or give other 'go-ahead' signals."\textsuperscript{142} In addition, a local governmental or private project may be considered a "major federal action" if a federal agency has substantial control over it.\textsuperscript{143} To determine if the control requirement has been met, one must examine the federal agency's authority to influence the nonfederal activity. For the project to qualify as a "major federal action," the federal agency must have actual power to control the nonfederal activity.\textsuperscript{144}

\textsuperscript{138} Almond Hill Sch. v. United States Dep't. of Agric., 768 F.2d 1030, 1039 (9th Cir. 1985).
\textsuperscript{139} Southwest Williamson County Cmty. Ass'n v. Slater, 243 F.3d 270, 278 (6th Cir. 2001).
\textsuperscript{140} Major Federal Action, 40 C.F.R. § 1508.18(a) (2003). \textit{See also} EPA Rule, 40 C.F.R. § 1508.18 (2003) (stating that "[m]ajor Federal action includes actions with effects that may be major and which are potentially subject to Federal control and responsibility"). \textit{But see Village of Los Ranchos De Albuquerque}, 906 F.2d at 1482 (stating that "the federal government contributed nearly $59,000 of the $75,000 cost of the location study" for a local bridge project. However, the court found no "major federal action" because the federal funds were used to prepare the EIS and the amount was extremely small in light of the total cost of the bridge project.).
\textsuperscript{141} Alaska v. Andrus, 591 F.2d 537, 540 (9th Cir. 1979) (internal citation omitted).
\textsuperscript{142} \textit{Id. See also} RESTORE: The North Woods v. United States Dep't of Agric., 968 F. Supp. 168, 177-78 (1997) (applying NEPA to land exchange between the U.S. Forest Service and a private for-profit ski resort).
Courts apply a two-factor test when evaluating whether to classify a project as a major federal action. They first consider the level of federal financial involvement in the proposed project. They then examine the level of federal control over the proposed project. The following two cases illustrate how courts can reach different results when applying this two-factor test.

In *Sierra Club v. United States Fish and Wildlife Service*, the court evaluated the issue of whether a proposed project was a “major federal action.” The pertinent facts are as follows. The Oregon Legislature required the Oregon Department of Fish and Wildlife (“ODFW”) to prepare a study of the impact of bear and cougar populations on deer and elk herds. To obtain assistance to prepare the study, ODFW successfully applied to the United States Fish and Wildlife Service (“FWS”) for funds pursuant to the Wildlife Restoration Act (“WRA”).

The Sierra Club and several other environmental and wildlife groups sued FWS. The plaintiffs challenged the proposed ODFW study and sued FWS because the study was to be partially financed by FWS through WRA funds. The plaintiffs put forth two NEPA arguments. First, they contended that FWS violated NEPA by failing to prepare an EIS before approving the distribution of the WRA funds. Furthermore, the plaintiffs argued in the alternative that FWS violated NEPA because it based its FONSI on an inadequate EA. In response, FWS asserted that its involvement with the state’s elk predation study was insufficient to make the study a “major federal action.” NEPA thus did not apply to the project.

---

Cir. 1990) (holding that the federal government did not have actual power to control the local project because “the state [decided] to proceed with the . . . project without federal assistance beyond the initial location study and EIS preparation”).

146 *Id.* at 1118.
147 *Id.* at 1119.
148 *Id.* at 1117.
149 *Id.*
150 *Id.* at 1120 (emphasis added).
151 *Sierra Club*, 235 F. Supp. 2d at 1120.
Focusing on "the nature of the federal funds used and the extent of federal involvement," the court determined that the level of federal funding involved in the project alone was "sufficient to 'federalize' the project." The court highlighted two reasons why the influx of federal money made the project a "major federal action." First, the WRA money represented seventy-five percent of the elk-study budget. Second, "the amount itself, regardless of the percentage it represent[ed], was more than $3 million."

After evaluating the level of federal funding, the court turned to the level of federal decision-making regarding the project. FWS retained some control over the project by refusing to disburse the WRA funds unless the study was conducted in compliance with its plans and specifications and by monitoring the project to ensure compliance. The court reasoned that FWS's monitoring demonstrated that the agency had the ability to control the manner in which the study was conducted because, if the study were not being conducted in compliance with FWS's plans as proposed, the agency could cease funding of the project. The court held that the project was a "major federal action" for NEPA purposes because FWS provided seventy-five percent of the funding for the project, provided more than $3 million to fund the project, and maintained a monitoring role throughout the life of the project.

In *Ka Makani 'O Kohala Ohana Inc. v. Water Supply*, the court decided the issue differently when it held that the conduct of the U.S. Department of Housing and Urban Development ("HUD") and U.S. Geological Survey ("USGS") "taken together, in the preliminary stages of the Kohala Project did not constitute..."
‘major federal action’ within the scope of NEPA.”\footnote{Id. at 961.} In \textit{Ka Makani}, the County of Hawaii Department of Water Supply (“DWS”) proposed the Kohala Project to transfer groundwater from the northern area of Kohala to South Kohala.\footnote{Id. The Kohala Project was “a transbasin water diversion system on the Big Island of Hawaii that would transfer up to twenty million gallons of groundwater per day . . . through an arrangement of groundwater wells, gravity flow pipelines, and storage reservoirs.” \textit{Id.}} The project was partially funded by USGS. Members of USGS helped to conduct the initial studies to determine the amount of groundwater that was located in the North Kohala basal aquifer. As a part of the process, the agency assisted in the test drilling and pumping that was conducted in the aquifer.\footnote{Id. at 958.} DWS relied on the USGS-generated data when advocating for the implementation of the project.\footnote{Id.} After consulting with the USGS about the parameters of the project, the DWS asked the agency to conduct more studies to gauge the proposed wells’ impact on several local bodies of water.\footnote{Id.}

The federal government became further involved with the Project when, in 1991, Congress passed an appropriations bill that made money available to the County of Hawaii to prepare an EIS in order to ascertain the impact of a planned water resource system that was to be located in Kohala.\footnote{Id.} To assist the County in assessing the funds, HUD gave application materials to the County and offered advice on how to complete the process.\footnote{Id.} In order to accelerate the approval process, HUD advised the County to limit its grant activities to those that were not subject to the mandates of NEPA.\footnote{Id.}

DWS only took money from the federal grant on one occasion. In 1995, the agency used $30,000 of the grant money to pay the contractors a portion of the fees they charged to prepare the state
EIS for the project. In 1998, DWS informed HUD that it had discontinued work on the project due to the state's poor economy. Nonetheless, DWS advised HUD that, when it was economically feasible, it would complete the project.\footnote{Id. (citation omitted).}

As a result, HUD informed Congress that the grant for the project should be closed.\footnote{Id. at 958-59.} A year later, Congress permitted Hawaii County to use the remainder of the grant money to implement other water system improvement project that had to be approved by HUD.\footnote{Ka Makani, 295 F.3d at 959.}

A nonprofit organization consisting of concerned citizens sued for an injunction to cease work on the water transmission system project until an EIS had been completed. According to the court, the primary issue in the case was whether the federal agencies' involvement was significant enough to transform the Kohala Project into a "major Federal action" for NEPA purposes.\footnote{Id. at 960.} The court relied on two factors, "the nature of the federal funds used and the extent of federal involvement," in order to evaluate the issue.\footnote{Id. (citing Sierra Club v. Penfold, 857 F.2d 1307, 1314 (9th Cir. 1988)).}

With regard to the first factor, the court determined that the amount of money the federal government contributed to the local agencies was not "sufficiently major to transform [the entire Kohala Project] into a 'major Federal action.'"\footnote{Id. at 960.} The court reasoned that the $1.3 million the federal government had offered to finance the project constituted "less than two percent of the estimated total project cost."\footnote{Id.}

The court also concluded that the federal agencies involved "lacked the degree of decision-making power, authority, or control over the Kohala Project needed to render it a major federal action."\footnote{Id.} The court further opined that Congress did not intend for NEPA to apply to state, local, or private actors because "[t]he
purpose of [the statute] is to 'bring environmental considerations to the attention of federal decision-makers.' The Court reasoned that "[a]lthough the USGS played an advisory role in the planning of the Kohala Project because of [its] expertise and participation in the preliminary research studies, [it] was not 'placed in a decision-making role.'"

Moreover, "[b]ecause the final decision-making power remained at all times with DWS," the court concluded that "USGS involvement was not sufficient to constitute 'major federal action.'" The court also noted that "HUD's provision of advice and information to DWS regarding its application for [the] grant 'did not constitute discretionary involvement or control over' the entire Kohala Project." Therefore, no part of the project was a "major federal action" for the purposes of NEPA.

Based upon current judicial precedent, NEPA applies to a situation if the federal government has provided a certain level of funding or exercised a certain level of control over the proposed project. By interpreting NEPA in this manner, courts have expanded the scope of the statute to cover more projects. This interpretation of the statute comports with Congress's desire to establish a broad, national environmental protection plan. Congress directed the agencies to implement the statute "to the fullest extent possible." A broad interpretation of NEPA's scope also provides an additional weapon for individuals trying to prevent the proliferation of environmental pollution in low-income and minority communities because most state and local projects receive some type of federal funding. Because private industries often receive federal money or other governmental incentives to

---

177 Ka Makani, 295 F.3d at 960-61 (quoting Friends of the Earth, Inc. v. Coleman, 518 F.2d 323, 329 (9th Cir. 1975) (emphasis added)).
178 Id. at 961.
179 Id. at 960.
180 Id. (citations omitted).
181 Id.
182 See supra notes 145-181 and accompanying text.
184 Id.
implement projects, those types of projects could also come within the mandates of NEPA. Federal agencies are contracting out more and more projects to private companies and therefore some of the private environmental hazards that are placed in low-income and minority communities are federal activities in disguise.\textsuperscript{185} Allowing NEPA's application to nonfederal projects financed by federal money prevents federal agencies from privatizing their activities to avoid adhering to the requirements of NEPA. The following section discusses other steps that may be taken to expand the application of the statute.

\textbf{D. Proposed Interpretation of NEPA}

Although courts' desire to apply NEPA broadly is laudable, the current system needs improvement. The key problem with courts' "major federal action" determination is the absence of an objective test or standard. The subjective nature of the current analysis has resulted in a lack of uniformity. As the results of the Sierra Club and Ka Makani cases indicate, predicting when a particular project will be classified as a "major federal action" for purposes of NEPA is difficult. Further, the subjective standard applied by courts places a heavy burden on the individuals seeking to have NEPA apply to the project. To have a project classified as a "major federal action," those persons must ensure that the court has accurate information about the level of federal funding and federal control over the project. This task is especially complicated when the project is sponsored by a private entity that may have an incentive to be less than forthcoming.

One possible solution to the problem is for the judiciary to create an objective test to determine when a non-federal action is a "major federal action." To achieve that goal, the judiciary could

establish a set percentage of federal funding at which point there would be a rebuttable presumption that the project was a "major federal action." For example, if the federal government provided fifty percent or more of the financing for a project, there would be a rebuttable presumption that the project was a "major federal action" and fell within the scope of NEPA.

Unfortunately, a percentage test would not address situations in which the federal government contributed a significant amount of money to a large project. In that instance, because the project is so large, even if the federal government contributed a substantial amount of money, its contribution might only equal a small percentage of the total cost of the project. Therefore, under the percentage test, the project would not be considered a "major federal action." To address this potential problem, the judiciary could base the presumption on the percentage or amount of the federal financial contribution. For instance, if the federal government's contribution exceeded a certain amount or accounted for a certain percentage of the overall budget of the project, the project would be presumed to be a "major federal action."

A third way to establish the presumption would be to determine the amount of money the federal government budgeted for the type of project under consideration. If the amount of money the federal government contributed to that project accounted for over a certain percentage of its budget for that type of project, the presumption would be established. In each instance, the entities desiring to have the project classified as non-federal would have the burden of rebutting the presumption. Placing the burden on project proponents would be fair because they are typically in the best position to obtain the information necessary to prove the level of the federal government's financial contribution.

In evaluating the level of the federal government's involvement, a court should consider the total level of project-related, federal funds the public or private entity received and should not focus on the manner in which those funds were used. In assessing the amount of control the federal government has over the project, the judiciary could also rely upon objective criteria. For example, if federal approval is necessary for full implementation of a nonfederal project, that project should be deemed a "major federal action" for purposes of NEPA.
E. Proposed Modification of NEPA

Another possible solution to the problem is for Congress to amend NEPA by replacing the "major federal action" requirement with a "major action" requirement. This amendment would allow NEPA to apply to private industry, even if the project lacks federal money or involvement. Since the enactment of NEPA, the line between federal and nonfederal projects has blurred significantly. Consequently, it may be difficult at times to determine whether a project is being put forth by a federal agency or a private business. Federal, state, and local agencies are contracting out more and more of their responsibilities to private companies. For example, many state and federal prisons are now operated by private companies. Given this trend, if NEPA is limited to projects implemented by federal agencies, the purpose of the statute will be undermined. Congress passed NEPA to ensure that the quality of the environment was protected. The best way to protect the environment is to focus on the action and not on the status of the actor. If a project is significant enough to impact the environment, it should be governed by NEPA.

The benefits of applying NEPA to all "major actions" that affect the quality of the environment outweigh any additional costs to private companies. There are several good reasons to apply

---

186 The Commerce Clause gives Congress the authority to regulate certain activities of private industry. See U.S. CONST. Art. I, § 8, cl. 3. Congress could therefore use that authority to amend NEPA to apply to "major actions" of private entities that impact the quality of the human environment. See Gibbs v. Babbitt, 214 F.3d 483, 492 (4th Cir. 2000) (stating that "[i]ntrastate activities may be subject to federal regulation if they have a 'meaningful connection with [a] particular, identifiable economic enterprise or transaction.'") (internal citations omitted).


NEPA to the activities of private companies. First, requiring private companies to comply with NEPA would force them to take a hard look at the potential environmental consequences of their actions. Accordingly, private companies will make environmentally responsible decisions when implementing projects. Community residents will benefit by not being subjected to the health risks that can result from exposure to environmental hazards. In addition, houses located in a community with a clean environment will appreciate in value. This type of action will also benefit private companies by protecting them against potential lawsuits by injured parties as a result of the projects they sponsor and implement.

Second, if private companies are subject to NEPA, they must provide information to the affected community. This information will enable the members of the community to organize to oppose the project if they conclude that the project will have an adverse environmental impact on their community. In light of the recent corporate scandals, the public has a negative perception of private companies. It is thus important for private companies to take steps to improve their image as good corporate citizens. If private companies follow the requirements of NEPA and keep the public informed, they will be taking a step in the right direction.

Third, expanding the scope of NEPA's application will further protect the quality of the national environment. As previously mentioned, private companies are more frequently undertaking activities that have traditionally been the domain of federal agencies. This trend makes fewer actions subject to NEPA and, as a result, projects are implemented without consideration of

---

190 Cheryl L. Wade, Comparisons Between Enron and Other Types of Corporate Misconduct: Compliance with Law and Ethical Decision Making as the Best Form of Public Relations, 1 SEATTLE J. SOC. JUST. 97, 97-98 (2002) (stating that "the best way to protect a company's public image is to comply with all applicable laws and behave in socially responsible ways").
191 See supra note 185 and accompanying text.
their environmental effect. Consequently, the quality of the environment is rapidly declining. This development is especially devastating for low-income and minority communities that are already inundated with environmental hazards.\textsuperscript{192} A primary objective of NEPA is to protect the quality of the national environment by forcing decision-makers to consider the environmental consequences of their actions. This goal can be better achieved by focusing on the potential impact of the contemplated action instead of on the status of the decision-makers. If a major action has an adverse effect on the environment, it does not matter if the decision to take the action was made by a federal or private entity; the quality of the environment has still been depleted.

On the other hand, some may argue against subjecting private companies to the requirements of NEPA for several reasons. First, applying NEPA to private companies may interfere with their ability to make decisions about the projects they choose to pursue.\textsuperscript{193} However, because NEPA is a procedural statute, its application would not interfere with the decision-making of private companies. As long as private companies comply with NEPA, they can still implement their proposed actions. NEPA does not dictate the outcome of the decision-making process; it only sets out the procedures to follow to reach an informed decision.

Second, if a private company must perform all of the information-gathering required by NEPA, the costs associated with the proposed project may increase.\textsuperscript{194} The consequence of this increase

\textsuperscript{192} A key example is the area between Baton Rouge and New Orleans, which is known as “cancer alley” because of its more than 100 chemical plants. Cruz Reynoso, Keynote Address, The Role of Assets in Assuring Equity, 21 U. ARK. LITTLE ROCK L. REV. 743, 751 (1999).

\textsuperscript{193} Because NEPA and CEQ regulations give detailed directions on the information that must be included in the EA and the EIS and the process that must be followed, the heads of private companies may argue that, if they have to comply with the statute, they will lose too much of their decision-making power. See 40 C.F.R. §§ 1508.9(b), 1591.4(e), 1508.11 (setting out some of the procedural requirements of the EIS process).

\textsuperscript{194} See Stewart E. Sterk, Environmental Review In The Land Use Process: New York's Experience With SEQRA, 13 CARDOZO L. REV. 2041, 2041-42 (1992) (concluding that state NEPA-like statutes (“little NEPAs”) that require the
in cost is two-fold. The added cost may make the proposed project economically infeasible and may cause the private company to not implement the project. This scenario will hurt the community because most private projects create jobs and provide necessary services. Furthermore, despite the increase in expenses, the private company may implement the project and pass the additional costs on to consumers. Members of the community will then have to pay more for the services provided by the project.

Although increased cost is a valid concern, it is a minor one. Prior to implementing proposed projects or conducting any business transaction, private companies typically perform some type of due diligence. As a part of that process, a private company usually performs a cost-benefit analysis. To execute this analysis, a private company must collect a substantial amount of

developers of private projects to prepare EISs before receiving government permits have made the process “time-consuming and costly”; see also Friends of Fiery Gizzard v. Farmers Home Admin., 61 F.3d 501, 504 (6th Cir. 1995) (noting that the preparation of an EIS is time-consuming and expensive).

See River Road Alliance, Inc. v. Corps of Engineers of United States Army et al., 764 F.2d 445, 449 (1985) (noting the potential to make a proposed project “economically infeasible”).

Michael Term, The Rules Have Changed, But the Game Remains the Same: Why the Government Has Turned to Criminal Prosecution As a Means of Enforcing Environmental Laws, 7 COOLEY L. REV. 407, 410 (1990) (discussing how, when the government imposes sanctions on corporations for failing to comply with environmental regulations, the corporations typically pass those costs on to consumers); see also David H. Topol, Hazardous Waste and Bankruptcy: Confronting the Unasked Questions, 13 VA. ENVTL. L.J. 185, 234 (1994) (discussing how consumers ultimately pay the price when corporations are faced with environmental compliance costs). But see David M. Driesen, The Societal Cost of Environmental Regulation: Beyond Administrative Cost-Benefit Analysis, 24 ECOLOGY L.Q. 545, 568-69 (1997) (arguing that corporations may not be able to pass pollution control costs to the consumer).

Larry Schnapf, Cost-Effective Environmental Due Diligence in Corporate Mergers and Acquisitions, 15 NAT. RESOURCES & ENV'T 80, 80-82 (2000) (discussing the importance of a company doing environmental due diligence); see also Ram Sundar & Bea Grossman, The Importance of Due Diligence in Commercial Transactions: Avoiding CERCLA Liability, 7 FORDHAM ENVTL. L.J. 351, 351 (1996) (discussing the importance of environmental due diligence in corporate and real estate transactions).
data, and it is unlikely that the additional information the company will have to gather to comply with NEPA will make a significant difference in the overall cost of the project. Currently, private companies must obtain various permits and licenses to implement projects and must submit a large amount of information to satisfy most state and local regulations.\footnote{198} Private companies have thus become adept at collecting information. Moreover, available technology has made data collection easy and affordable.\footnote{199} Consequently, gathering information to satisfy the requirements of NEPA would not be an overly burdensome task for private companies.

Finally, the heart of NEPA's environmental protection scheme is the EIS requirement. The main complaint against this requirement is that preparation of an EIS can be time-consuming.\footnote{200} Because the purpose of NEPA's requirements is to require the decision-maker to consider all aspects of the decision, the actual implementation of the project may take longer. Nevertheless, a process that causes private companies to put more time and thought into their decisions may not be a bad one. In the past, communities have had to bear the adverse consequences of hastily made corporate decisions.\footnote{201} Forcing a private company to deliberate more before implementing a project, in order to comply with NEPA could substantially benefit the company and the citizens. One commentator has stated that a key benefit of NEPA's EIS

\footnote{198} See Molly Elizabeth Hall, Pollution Havens? A Look At Environmental Permitting In The United States And Germany, 7 WIS. ENVTl. L.J. 1, 12-18 (2000) (discussing the process BMW had to undertake to obtain all of the permits it needed to open up a plant in South Carolina).


\footnote{200} Fiery Gizzard, 61 F.3d at 501.

requirement is the fact that it can delay a project long enough "to give community groups" who oppose the project "time to organize."\textsuperscript{202}

\textbf{F. Potential Utility of NEPA}

NEPA has the potential to be a significant instrument for individuals combating environmental discrimination because access to information can empower members of low-income and minority communities to oppose the placement of environmental hazards in their neighborhoods. For example, in \textit{R.I.S.E., Inc. v. Kay},\textsuperscript{203} a bi-racial citizens group challenged the decision of the local county board to site a landfill in a predominately African-American community in Virginia.\textsuperscript{204} The landfills in King and Queen County did not meet the new environmental standards issued by the state. Consequently, the King and Queen County Board of Supervisors ("Board") negotiated with the Chesapeake Corporation for a joint venture landfill.\textsuperscript{205} Chesapeake withdrew from the negotiations during the summer of 1988, and the Board decided to purchase property from Chesapeake to use as a landfill site.\textsuperscript{206} Chesapeake had two properties available for sale, the Piedmont Tract and the Norman-Saunders Tract. Because the Piedmont Tract had already been tested and deemed suitable, the Board decided to purchase it for use as a landfill.\textsuperscript{207} After several public hearings, the members of the Board gave unanimous approval to the purchase decision.\textsuperscript{208}

At the invitation of Reverend Taylor, pastor of Second Mt. Olive Baptist Church, several Board members met with persons who opposed the placement of the landfill.\textsuperscript{209} The church was important to the community because of its historical value. In

\begin{footnotes}
\item[202] Mahoney, \textit{supra} note 37, at 373.
\item[204] Id. at 1145.
\item[205] Id.
\item[206] Id.
\item[207] Id.
\item[208] Id. at 1147.
\item[209] \textit{R.I.S.E}, 768 F.Supp. at 1147.
\end{footnotes}
1869, freed slaves built the church and a school.\textsuperscript{210} The main concerns of those opposing the project were that the landfill

1) would reduce the quality of life of area residents by increasing noise, dust and odor; 2) result in a decline in property values; 3) interfere with worship and social activities in [the church] and grave sites on church grounds; 4) require major improvements in access roads; and 5) result in blighting an historic church and community.\textsuperscript{211}

Because the three other landfills in the area were in neighborhoods that were at least ninety-five percent African-American, and because the county had previously refused to site a landfill in a predominately white neighborhood, the court acknowledged that “the placement of landfills in King and Queen County . . . had a disproportionate impact [up]on” the African-American community.\textsuperscript{212} Nonetheless, the court concluded that the plaintiffs had not “satisfie[d] the remainder of the discriminatory purpose equation,” and the court rejected the Equal Protection claim.\textsuperscript{213}

The court appeared swayed by the Board’s need to make a quick decision. A previous deal to acquire landfill space had fallen through, and tests had indicated that the Piedmont tract was acceptable for use as a landfill.\textsuperscript{214} Moreover, the court seemed to give some weight to the fact that the Board contained three white members and two black members. Further, the court seemed to question R.I.S.E.’s motives in bringing a discrimination action to challenge the siting decision. The court stated that “[r]ace discrimination did not become a significant public issue until it appeared that the initial thrust was failing.”\textsuperscript{215} The court’s skepticism was probably due to the fact that R.I.S.E. suggested a replacement site

\textsuperscript{210} \textit{Id.}
\textsuperscript{211} \textit{Id.}
\textsuperscript{212} \textit{Id.} at 1148-49.
\textsuperscript{213} \textit{Id.} at 1149.
\textsuperscript{214} \textit{Id.} at 1150.
\textsuperscript{215} \textit{R.I.S.E.}, 768 F. Supp. at 1148.
for the landfill that had a population that was eighty-five percent black.\textsuperscript{216}

The unsuccessful outcome of the case does not negate the value of information it provides to individuals trying to prevent an environmental hazard from being placed in their community. For example, prior to building the landfill, "the Board [considered] the economic, environmental, and cultural needs of the" community.\textsuperscript{217} Because the Board did a NEPA-like analysis, the case is a good illustration of how the process would work if NEPA were applied to the implementation of all "major actions" that significantly impact the quality of the environment. Throughout the decision-making process, the Board kept the community informed about all aspects of the project, including the potential environmental consequences of building the landfill, by holding public meetings and sharing the results of environmental studies.\textsuperscript{218}

Once the community members received the necessary information, they were able to organize themselves in order to oppose the proposed landfill.\textsuperscript{219} This opposition forced the Board to take steps to lessen the adverse impacts of the project. For example, the Board and the contractors discussed ways to minimize the impact of the landfill on a local church.\textsuperscript{220} As a result, the contractors agreed to "leave a large vegetative buffer between the [church's] graveyard and the landfill's grounds."\textsuperscript{221} Because the residents were so well-informed and organized, the Board members probably realized that ignoring their concerns would have been politically unwise. The Board thus responded to those concerns by establishing a citizens' advisory group to review the proposed project.\textsuperscript{222} Furthermore, the Board inspected the suitability of the alternative site the residents recommended for placement of the landfill.\textsuperscript{223}

\textsuperscript{216}See id.
\textsuperscript{217}Id. at 1150.
\textsuperscript{218}Id. at 1146.
\textsuperscript{219}Id. at 1145.
\textsuperscript{220}Id. at 1147.
\textsuperscript{221}R.I.S.E., 768 F. Supp. at 1147.
\textsuperscript{222}Id. at 1147-48.
\textsuperscript{223}Id. at 1148.
Although the citizens were unsuccessful in their quest to prevent the placement of the landfill in their community, their efforts forced the Board and the contractors to consider ways to make the project as environment-friendly as possible.

CONCLUSION

It makes sense that environmental hazards, like landfills, would be placed in sparsely populated areas. However, the growth of the population and the finite amount of open space available has made developers' placing of environmental hazards more difficult. Consequently, more of these types of projects are placed in heavily populated areas. Because low-income and minority persons have less political power, environmental hazards are frequently placed in their communities. Given the need for jobs in those communities, residents usually do not object to the

\footnote{224 Id. at 1147-48.}

\footnote{225 See Matthew B. Leveridge, Should Environmental Justice Be a National Concern? A Review and Analysis of Environmental Justice Theories and Remedies, 15 J. NAT. RESOURCES & ENVTL. L. 107, 132 (1999-2000) (stating that sparse population is one factor that the EPA considers when listing an area as desirable for the placement of a landfill).}

\footnote{226 See H.W. Hannah, Farming In the Face Of Progress, 11 PROB. & PROP. 8, 9-11 (1997) (discussing the impact population growth has had on the use of land for farming and other agricultural use).}


\footnote{228 See Pamela Duncan, Environmental Racism: Recognition, Litigation, And Alleviation, 6 TUL. ENVTL. L.J. 317, 333 (1993) (citing RACE AND THE INCIDENCE OF ENVIRONMENTAL HAZARDS: A TIME FOR DISCOURSE 164 (Bunyan Bryant & Paul Mohai eds., 1992) (stating that one factor that influences the decision to place environmental hazards include “the lack of local opposition to the facility, often resulting from minorities’ lack of organization and political resources as well as their need for jobs . . ..”)); see also Mahoney, supra note 37, at 365-66.}
placement of the environmental hazard.\textsuperscript{229} As a result, low-income and minority communities are unfairly swamped with facilities that are potential environmental hazards.

A primary reason why this inequity continues to exist is that the project implementers do not provide adequate information to the community. One of the ways to reduce this informational disparity is to apply NEPA to all "major actions" that significantly impact the quality of the environment. The EIS requirement of NEPA is a powerful information gathering tool. The information obtained through this process may be used to assist community members in opposing the placement of environmental hazards in their communities. In addition, the information acquired may be used to make the case for having the hazard removed from the community and for compensating the residents for their losses.

Another reason why governing bodies continue to allow environmental hazards to be sited in low-income and minority communities is discrimination. The lives of low-income and minority persons are often not valued because they are considered to be burdens of, and not assets to, society. Hence, decision-makers are frequently willing to allow members of those populations to be unduly exposed to environmentally hazardous materials. Knowledge is power. Low-income and minority persons need to tap into that power to protect themselves from exposure to numerous environmental risks. They need to realize that, when it comes to combating environmental discrimination, what they don't know can hurt them. A lack of information can cost them the battle against environmental discrimination.

\textsuperscript{229} See Thomas Lambert & Christopher Boerner, \textit{Environmental Inequity: Economic Causes, Economic Solutions}, 14 \textit{Yale J. on Reg.} 195, 219 (1997) (discussing the economic benefits of a landfill placed in a predominately low-income black areas, including "400 jobs (60% of which are held by county residents), a $10 million annual payroll, and a guaranteed $4.2 million annual tax revenue"). Id.
### APPENDIX A

**1980 CENSUS POPULATION, INCOME, AND POVERTY DATA FOR CENSUS AREAS WHERE LANDFILLS ARE LOCATED**

<table>
<thead>
<tr>
<th>LANDFILL</th>
<th>POPULATION</th>
<th>MEDIAN FAMILY INCOME</th>
<th>POPULATION BELOW POVERTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% Black</td>
<td>All Races</td>
</tr>
<tr>
<td>Chemical Waste Man. (AL)</td>
<td>626</td>
<td>90</td>
<td>11,198</td>
</tr>
<tr>
<td>SCA Services (SC)</td>
<td>849</td>
<td>38</td>
<td>16,371</td>
</tr>
<tr>
<td>Industrial Chemical Co. (SC)</td>
<td>728</td>
<td>52</td>
<td>18,996</td>
</tr>
<tr>
<td>Warren County PCB Landfill (NC)</td>
<td>804</td>
<td>66</td>
<td>10,367</td>
</tr>
</tbody>
</table>

---