

# THE ROLE OF INFORMATION IN ENVIRONMENTAL JUSTICE

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|   |     |
|---|-----|
| INTRODUCTION.....   | 701 |
| I. FEDERAL ENVIRONMENTAL JUSTICE POLICY .....   | 706 |
| II. FEDERAL POLICY ON INFORMATION AND ENVIRONMENTAL JUSTICE .....   | 718 |
| III. ENVIRONMENTAL JUSTICE INFORMATION: TOOLS AND SOURCES .....   | 724 |
| A. EPA's <i>Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT)</i> .....                        | 725 |
| B. EPA's <i>EJView</i> .....  | 729 |
| C. EPA's <i>Community Cumulative Assessment Tool (CCAT)</i> .....   | 731 |
| D. <i>Emergency Planning and Community Right-to-Know Act (EPCRA) and the Toxics Release Inventory (TRI)</i> ..... | 732 |
| E. <i>Envirofacts Data Warehouse</i> .....  | 736 |
| 1. Water.....   | 737 |
| 2. Air.....   | 738 |
| 3. Waste .....  | 738 |
| 4. Land .....   | 739 |
| 5. Toxics .....   | 740 |
| 6. Facilities Information .....   | 740 |
| 7. Mapping Tools .....  | 740 |
| CONCLUSION.....   | 742 |

## INTRODUCTION

Environmental justice is the prevalent term used to describe efforts to identify and address disproportionate environmental risks and impacts experienced by low-income and minority populations. Studies conducted over the past several decades “strongly suggest” that industrial sites, hazardous waste disposal facilities, and other pollution generating facilities are disproportionately found in or near low-income and minority

communities.<sup>1</sup> Such evidence indicates that poor and minority neighborhoods, whether urban or rural, have far greater odds of higher exposure to environmental harms and risks than wealthy or affluent areas.<sup>2</sup> The goal of environmental justice is to address and respond to such inequities.

The national environmental justice conversation began in earnest in the early 1980s.<sup>3</sup> Nearly forty years later, the Obama Administration has placed renewed emphasis on this issue and has injected badly needed vitality into the national discussion.<sup>4</sup> Hoping to further this important conversation, the American Bar Association Section of Environment, Energy, and Resources (ABA-SEER) and the University of Mississippi School of Law co-hosted a Symposium on U.S. Environmental Justice and the Law in April 2011. The Symposium brought representatives of academia, government, the private bar, nongovernmental organizations, and the corporate sector to the University of Mississippi School of Law to discuss current issues in the field of environmental justice.

At the Symposium, the author moderated a panel discussion on the topic from which the title of this article is taken. This article seeks to expand on that discussion by examining the critical importance of information to efforts to identify and address environmental justice concerns. This article further surveys important developments in the generation, use, and promotion of public access to information relevant to such efforts, including significant developments which have occurred after the April 2011 Symposium. Because so many of these developments are occurring at the federal level, the focus of this article will be on federal environmental justice information policy and the United States Environmental Protection Agency (EPA).<sup>5</sup>

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<sup>1</sup> Barry E. Hill, *Environmental Justice: Legal Theory and Practice* 9 (2009).

<sup>2</sup> *Id.*

<sup>3</sup> *See id.* at 9-10 (tracing first protests against environmental injustice to 1967, but noting that the 1982 Warren County, North Carolina PCB landfill siting protests were when environmental justice began to transition from a local issue to a national movement).

<sup>4</sup> *See infra* notes 64-100 and accompanying text.

<sup>5</sup> Although beyond the scope of this article, there is indeed considerable ongoing activity at the state level to increase public access to information to further the goals of environmental justice. For a discussion of some of these efforts, particularly in

Information is—in general terms—of critical importance to environmental law and policy. A robust and effective environmental protection system is not possible if environmental policymakers lack access to necessary information.<sup>6</sup> Information needs are particularly important, and information deficits particularly acute, in such areas as pollution control, natural resources management, and regulation of toxic substances and hazardous wastes.<sup>7</sup> Environmental regulators cannot effectively regulate without access to information about activities that adversely affect human health and the environment. Information is necessary to accurately identify the causes of environmental problems. Information is critical to the ability of environmental policymakers to design appropriate solutions and programs to address those causes. Information must be gathered on whether environmental actors are complying with their obligations under

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Mississippi, West Virginia, and California, see April Hendricks Killcreas, *The Power of Community Action: Environmental Injustice and Participatory Democracy in Mississippi*, 81 Miss. L.J. 769, 782–93, 795–97 (2012). To a much lesser extent, there is also movement in the private sector to encourage voluntary public disclosure of environmental justice information by business and industry. See David Monsma, *Equal Rights, Governance, and the Environment: Integrating Environmental Justice Principles in Corporate Social Responsibility*, 33 Ecology L.Q. 443, 492-93 (2006) (urging voluntary corporate reporting of environmental justice indicators through such mechanisms as the Global Reporting Initiative guidelines for corporate environmental and social responsibility reporting). Such efforts seek to encourage the private sector to more “adequately address the central concerns or principles of environmental justice as a matter of corporate social responsibility and sustainable development.” *Id.* at 496; see also Global Reporting Initiative, *Sustainability Reporting Guidelines (Version 3.1)* 38 (2011) (requiring reporting on environmental “[o]perations with significant potential or actual negative impacts on local communities”); W. Edward Stead & Jean Garner Stead, *Sustainable Strategic Management* 194 (2004) (“[U]nder GRI guidelines, firms may want to report how they measure their environmental justice efforts and outcomes in order to ensure that their environmental activities do not have a disproportionately negative impact on low-income or minority communities.”). For a further discussion of the evolution of the voluntary regime of corporate environmental reporting and information disclosure, including the Global Reporting Initiative guidelines, see David W. Case, *Corporate Environmental Reporting as Informational Regulation: A Law and Economics Perspective*, 76 U. Colo. L. Rev. 379 (2005) [hereinafter Case, *Corporate Environmental Reporting*].

<sup>6</sup> See John S. Applegate, *The Perils of Unreasonable Risk: Information, Regulatory Policy and Toxic Substances Control*, 91 Colum. L. Rev. 261, 261 (1991); David W. Case, *The EPA’s HPV Challenge Program: A Tort Liability Trap?*, 62 Wash. & Lee. L. Rev. 147, 148 (2005); Daniel C. Esty, *Environmental Protection in the Information Age*, 79 N.Y.U. L. Rev. 115, 117-18 (2004).

<sup>7</sup> See Applegate, *supra* note 6, at 262-63; Esty, *supra* note 6, at 140-41.

environmental regulatory programs. Similarly, information is necessary to determine whether such programs are achieving success and environmental conditions are improving or whether adjustments to chosen approaches should be made.

Environmental information is also of great importance to the general public. Citizens cannot effectively participate in important governmental activities such as environmental regulation without dependable access to information about the environmental activities of businesses and industry.<sup>8</sup> Citizen enforcement of environmental laws through citizen-suit provisions, a crucial component of environmental protection in this country, would not be possible in the absence of public access to such information.<sup>9</sup> Access to public environmental information is also critical to the ability of citizens to know what environmental risks they may face in their communities.<sup>10</sup> Public environmental information empowers citizens with knowledge about environmental conditions in the places where they live, work, go to school, or recreate.<sup>11</sup> Such knowledge helps citizens evaluate the environmental hazards and risks posed by the activities of businesses and industry that they encounter in their daily lives.

During the last few decades, federal and state “right-to-know” laws, such as the federal Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA),<sup>12</sup> have made more data on environmental risks and hazards available to the public.<sup>13</sup> Such laws seek to provide information that allows individuals to make informed decisions about the presence of pollution, hazardous substances, or other similar concerns in their environments.<sup>14</sup> Public access to information about the presence of pollution or hazardous substances in communities allows individuals to decide on appropriate responsive action. Such

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<sup>8</sup> See John D. Echeverria & Julie B. Kaplan, *Poisonous Procedural “Reform”: In Defense of Environmental Right-To-Know*, 12 Kan. J.L. & Pub. Pol’y 579, 587-88 (2003).

<sup>9</sup> Bernard A. Weintraub, *Access to Information*, in *The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risks* 265, 265 (Michael B. Gerrard & Sheila R. Foster eds., 2d ed. 2008).

<sup>10</sup> See Robert V. Percival et al., *Environmental Regulation: Law, Science, and Policy* 311 (6th ed. 2009).

<sup>11</sup> See Echeverria & Kaplan, *supra* note 8, at 590.

<sup>12</sup> 42 U.S.C. §§ 11001-11050 (2006).

<sup>13</sup> See Echeverria & Kaplan, *supra* note 8, at 582-85.

<sup>14</sup> *Id.* at 590.

actions might include avoiding areas where such pollution is occurring or toxic substances are located. Informed citizens can take other precautions against exposure to pollution or other hazards, or can make decisions about where to live or work or recreate. Informed citizens can also raise concerns with local businesses or employers, seek to publicize such concerns in the media, or create political pressures for government to address specific problems in the community.<sup>15</sup>

Informational needs of policymakers and the public in the environmental arena converge in many unique and important ways in the field of environmental justice. For policymakers, informational needs are particularly acute for efforts to identify communities unfairly experiencing disproportionate environmental burdens so as to be able to target resources, enforcement, and compliance activities to address such injustices.<sup>16</sup> Moreover, public access to information is of “extraordinary importance” in the environmental justice context.<sup>17</sup> Substantial information asymmetries typically exist between polluting industries and entities and surrounding environmental justice communities.<sup>18</sup> Thus, affected community members have less access to information regarding environmental problems than entities creating such problems.<sup>19</sup> As Luke Cole and Sheila Foster have emphasized:

Low-income and communities of color enter the [environmental] decision-making process with fewer resources than other interests in the decision-making process. These communities have less time, less information, and less

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<sup>15</sup> See *id.* at 590-91; David W. Case, *Changing Corporate Behavior Through Environmental Management Systems*, 31 Wm. & Mary Env'tl. L. & Pol'y Rev. 75, 104 (2006) [hereinafter Case, *Changing Corporate Behavior*]; David W. Case, *The Law and Economics of Environmental Information as Regulation*, 31 Env'tl. L. Rep. 10773, 10785 (2001) [hereinafter Case, *Environmental Information as Regulation*]; Bradley C. Karkkainen, *Information as Environmental Regulation: TRI and Performance Benchmarking, Precursor to a New Paradigm?*, 89 Geo. L.J. 257, 316 (2001).

<sup>16</sup> See *infra* notes 150-78 and accompanying text.

<sup>17</sup> Weintraub, *supra* note 9, at 265.

<sup>18</sup> *Id.*; see also Luke W. Cole & Sheila R. Foster, *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement* 109 (2001).

<sup>19</sup> Weintraub, *supra* note 9, at 265.

specialized knowledge about the legal, technical, and economic issues involved.<sup>20</sup>

For these reasons, environmental justice advocates argue that such “systematic inequality in the distribution of information about environmental matters is a symptom of environmental injustice.”<sup>21</sup> Again, Cole and Foster argue that:

A communit[y]’s lack of access to . . . information and knowledge creates severe barriers to its full participation in a pluralistic process. As democratic theorists have recognized, information and knowledge are a form of political power in pluralistic processes; only when access to them is relatively equal among parties to a conflict can the parties truly understand their own interests and dialogue proceed toward the democratic ideal.<sup>22</sup>

Thus, efforts to remedy environmental injustices must include efforts to ensure more equitable access to critical environmental information for environmental justice communities.<sup>23</sup>

### I. FEDERAL ENVIRONMENTAL JUSTICE POLICY

The environmental justice movement seeks to remedy the disproportionate burden of adverse environmental impacts and exposure to environmental risks borne by low-income and/or minority communities.<sup>24</sup> The movement originated as “a grassroots social justice movement combining the principles of civil rights and environmental protection.”<sup>25</sup> The movement “gained traction . . . some 20 years *after* the modern age of environmental law and regulation began.”<sup>26</sup> Indeed, most commentators pinpoint the beginning of the movement to the

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<sup>20</sup> Cole & Foster, *supra* note 18, at 109.

<sup>21</sup> Weintraub, *supra* note 9, at 265 (citing Elena Petkova et al., Closing the Gap: Information, Participation, and Justice in Decision-Making for the Environment (2003)); *see also* Svitlano Kravchenko, *Is Access to Environmental Information a Fundamental Human Right?*, 11 Or. Rev. Int’l L. 227 (2009).

<sup>22</sup> Cole & Foster, *supra* note 18, at 109.

<sup>23</sup> Weintraub, *supra* note 9, at 265, 292-93.

<sup>24</sup> Hill, *supra* note 1, at 7; Monsma, *supra* note 5, at 444.

<sup>25</sup> Monsma, *supra* note 5, at 451.

<sup>26</sup> James M. Grijalva & Daniel E. Gogal, *The Evolving Path Toward Achieving Environmental Justice for Native America*, 40 Env’tl. L. Rep. 10905, 10906 (2010).

early 1980s and protests by African Americans against the siting of toxic waste dumps in their communities, including the well-known Warren County, North Carolina landfill protests in 1982.<sup>27</sup> However, even though such grassroots efforts originated in the early 1980s, others see the environmental justice movement as a logical continuation and outgrowth of the earlier efforts of the larger civil rights movement of the 1950s through the 1970s.<sup>28</sup>

Commentators have noted that “[t]here is no universally accepted definition of environmental justice.”<sup>29</sup> Indeed, the very concept of environmental justice has “evolved considerably” over time.<sup>30</sup> Given its perceived place within the context of the larger civil rights movement, many proponents of environmental justice define the concept within the rubric of “environmental racism.”<sup>31</sup> This view argues that minority communities are deliberately targeted for toxic waste disposal and siting of polluting industries through racially discriminatory environmental policymaking and enforcement of regulations and laws.<sup>32</sup> But, while the term “environmental racism” focuses on the racial composition of communities that bear a disproportionate burden of environmental risks and impacts, the concept of “environmental justice” is much broader and focuses on *both* racial *and* socio-economic status as markers of such communities.<sup>33</sup> This focus on “injustice” as well as race seeks to emphasize that environmental justice communities are typically poor and substantially lacking in the political acumen and power enjoyed by business and industry interests that create environmental impacts and risks for surrounding communities.<sup>34</sup>

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<sup>27</sup> *Id.*; Julia C. Rinne & Carol E. Dinkins, *Environmental Justice: Merging Environmental Law and Ethics*, 25 Nat. Resources & Env't 3, 3 (2011).

<sup>28</sup> Cole & Foster, *supra* note 18, at 20.

<sup>29</sup> Michael B. Gerrard, *Preface to the First Edition*, in *The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risks* xxxiii, xxxiii (Michael B. Gerrard & Sheila R. Foster eds., 2d ed. 2008); Tom Stephens, *An Overview of Environmental Justice*, 20 T.M. Cooley L. Rev. 229, 233 (2003).

<sup>30</sup> Monsma, *supra* note 5, at 450.

<sup>31</sup> See Hill, *supra* note 1, at 13-14 (excerpt from Comm'n for Racial Justice, United Church of Christ, *Toxic Wastes and Race in the United States* (1987)); see also Robert D. Bullard, *Dumping in Dixie: Race, Class, and Environmental Quality* 98 (1994).

<sup>32</sup> Monsma, *supra* note 5, at 453; Hill, *supra* note 1, at 7.

<sup>33</sup> See Cole & Foster, *supra* note 18, at 15.

<sup>34</sup> *Id.* at 70-71, 109.

Partly in an effort, particularly by governmental entities, to avoid the controversial and politically charged nature of such terms as “racism” and “justice,” the term “environmental equity” has also become a significant part of the lexicon of the environmental justice movement.<sup>35</sup> “Environmental equity” is defined as the right “of all people to benefit from the environment and to be equally protected from the effects of human use and abuse of it.”<sup>36</sup> Emphasizing the concept of “equity” in this manner depicts the issue of disproportionality of environmental risks and impacts “as a matter of achieving an ‘equitable’ redistribution of pollution.”<sup>37</sup> In this regard, the EPA’s current environmental justice strategy focuses “not only [on] the consideration of how [environmental] burdens are distributed across all populations, but also how benefits are distributed.<sup>38</sup> That is, the EPA “encourages the evaluation of the distribution of burdens by paying special attention to populations that have historically borne a disproportionate share of environmental harms and risks,” but simultaneously requires examination of “the distribution of the positive environmental and health consequences from our activities.”<sup>39</sup>

The EPA’s emphasis on the concept of environmental equity and de-emphasis on the issue of race in its approach to environmental justice began in 2005.<sup>40</sup> This approach is certainly not without controversy.<sup>41</sup> The equity-focused approach of “treating all communities equally regardless of their race or socioeconomic status” is argued by some commentators to be inconsistent with the environmental justice movement’s “focus on

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<sup>35</sup> *Id.* at 15; Hill, *supra* note 1, at 7-8; Monsma, *supra* note 5, at 453.

<sup>36</sup> Willie A. Gunn, *From the Landfill to the Other Side of the Tracks: Developing Empowerment Strategies to Alleviate Environmental Injustice*, 22 Ohio N.U. L. Rev. 1227, 1234 (1996).

<sup>37</sup> Ryan Holifield, *Defining Environmental Justice and Environmental Racism*, 22 Urb. Geography 1, 80 (2001); *see also* Hill, *supra* note 1, at 7-8.

<sup>38</sup> U.S. Evtl. Prot. Agency: Office of Evtl. Justice, Plan EJ 2014, at 3 (2011) [hereinafter EPA, Plan EJ 2014].

<sup>39</sup> *Id.*

<sup>40</sup> Christine M. Foot, *Scrutinizing Strict Scrutiny: Environmental Justice After Adarand Constructors, Inc. v. Pena*, 11 Berkeley J. Afr.-Am. L. & Pol’y 123, 124, 131 (2009); Bradford C. Mank, *Executive Order 12,898*, in *The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risks* 101, 117 (Michael B. Gerrard & Sheila R. Foster eds., 2008).

<sup>41</sup> *See* Mank, *supra* note 40, at 117.

giving additional consideration to protecting minorities and low-income persons from disproportionate environmental impacts.”<sup>42</sup> This 2005 shift in emphasis is attributed to the EPA’s view of its obligations under Supreme Court decisions such as *Adarand Constructors, Inc. v. Peña*<sup>43</sup> and *Gruter v. Bollinger*.<sup>44</sup> *Adarand* and *Gruter* involve whether and how federal and state governments may constitutionally make decisions based upon racial classifications, with such decisions subject to strict scrutiny review and considerations of whether they are “narrowly tailored” to serve “compelling” governmental interests.<sup>45</sup> Whether such precedents should apply to the federal government’s environmental justice strategies, however, has been strongly questioned.<sup>46</sup>

Nonetheless, the 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.”<sup>47</sup> The agency

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<sup>42</sup> *Id.*; see also Foot, *supra* note 40, at 124 (“[M]any people became concerned in 2005 when the EPA made a dramatic shift by deemphasizing race in its strategy for identifying potential environmental justice areas of concern.”).

<sup>43</sup> 515 U.S. 200 (1995). *Adarand* holds that federal affirmative action programs utilizing racial classifications are subject to strict scrutiny review, and such classifications are thus constitutional only if “narrowly tailored” to serve a “compelling” governmental interest. David W. Case, *Setting a Higher Standard: Judicial Review of Federal Affirmative Action in the Wake of Adarand*, 16 Miss. C. L. Rev. 369, 369 (1996).

<sup>44</sup> 539 U.S. 306 (2003); see Foot, *supra* note 40, at 131 (“Around the time it reaffirmed its commitment to environmental justice in November 2005, [the EPA] also began to cite *Adarand* as forbidding any consideration of race in its environmental justice decision-making.”); Hill, *supra* note 1, at 197 (“In response to U.S. Supreme Court decisions such as *Adarand Constructors, Inc. v. Peña* and *Gruter v. Bollinger* regarding the use of racial classifications in government decision making, EPA developed a methodology . . . that does not use race as a criterion for making environmental decisions.”).

<sup>45</sup> Case, *supra* note 43, at 369; Hill, *supra* note 1, at 197.

<sup>46</sup> See Foot, *supra* note 40. But see Hill, *supra* note 1, at 197 (“Eventually, it became clear that the approach of the [environmental justice] scholars could not be adopted by federal decisionmakers in the context of environmental protection for one important reason—federal and state governments, based upon the U.S. Constitution, cannot make environmental decisions based upon racial classifications.”).

<sup>47</sup> *Environmental Justice: Basic Information*, EPA.gov, <http://epa.gov/environmentaljustice/basics/index.html> (last visited Jan. 20, 2012). The EPA has reaffirmed this definition of environmental justice as recently as September 2011 in its

defines “fair treatment” in this context as the notion that “no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies.”<sup>48</sup> “Meaningful involvement” is defined as:

- 1) potentially affected community members have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health;
- 2) the public’s contribution can influence the regulatory agency’s decision;
- 3) the concerns of all participants involved will be considered in the decision-making process;
- and 4) the decision-makers seek out and facilitate the involvement of those potentially affected.<sup>49</sup>

Significantly, the EPA has identified the availability or lack of necessary information to be a potential barrier to meaningful community involvement in environmental decision-making and a potential contributor to disproportionate environmental risks and impacts.<sup>50</sup>

The EPA’s initial focus on environmental justice began following the influential 1987 study *Toxic Wastes and Race in the United States* by the United Church of Christ’s Commission for Racial Justice.<sup>51</sup> The Commission’s national study concluded that minority and low income communities were disproportionately afflicted with the risks and impacts of industrial pollution and hazardous waste disposal.<sup>52</sup> EPA Administrator William Reilly subsequently formed the EPA’s Environmental Equity Workgroup in 1990 to examine evidence that low income and minority

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current strategic environmental justice plan, Plan EJ 2014. See EPA, Plan EJ 2014, *supra* note 38, at 3.

<sup>48</sup> U.S. Env’tl. Prot. Agency, EPA’s Action Development Process: Interim Guidance on Considering Environmental Justice During the Development of an Action 3 (2010) [hereinafter EPA, Interim Guidance], available at <http://www.epa.gov/compliance/ej/resources/policy/considering-ej-in-rulemaking-guide-07-2010.pdf>; EPA, Plan EJ 2014, *supra* note 38, at 3.

<sup>49</sup> EPA, Interim Guidance, *supra* note 48, at 3; EPA, Plan EJ 2014, *supra* note 38, at 3.

<sup>50</sup> EPA, Interim Guidance, *supra* note 48, at 8.

<sup>51</sup> Rinne & Dinkins, *supra* note 27, at 3.

<sup>52</sup> *Id.*

communities were at greater risk than the general population from exposure to environmental hazards.<sup>53</sup> In 1992, the EPA created the Office of Environmental Justice within the agency, and, in 1993, established the National Environmental Justice Advisory Council (NEJAC) to advise the agency on environmental justice issues.<sup>54</sup>

The first formalized federal governmental recognition of the need to address environmental justice concerns came in early 1994 through President Clinton's issuance of Executive Order 12,898.<sup>55</sup> This order requires federal agencies, "to the greatest extent practicable and permitted by law," to "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."<sup>56</sup> To guide federal agencies in pursuit of this goal, the order created the federal Interagency Working Group on Environmental Justice (IWG).<sup>57</sup> The IWG is comprised of twelve federal agencies and several White House offices and is chaired by the EPA Administrator.<sup>58</sup>

As required by Executive Order 12,898, the EPA issued a report the following year outlining its strategic approach to environmental justice.<sup>59</sup> The EPA's 1995 environmental justice

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<sup>53</sup> *Id.* at 3-4.

<sup>54</sup> *Id.* at 4.

<sup>55</sup> Exec. Order No. 12,898, 3 C.F.R. § 859 (1994), *reprinted in* 42 U.S.C. § 4321 (2006) [hereinafter Exec. Order 12,898]. The state of Connecticut had created the first formalized governmental environmental justice program the previous year in 1993. Steven Bonorris & Nicholas Targ, *Environmental Justice in the Laboratories of Democracy*, 25 Nat. Resources & Env't 44, 44 (2010). As of 2010, forty-one states had "statutes, regulations, or other initiatives that further environmental justice." *Id.*

<sup>56</sup> Exec. Order 12,898, *supra* note 55, § 1-101.

<sup>57</sup> *Id.* § 1-102.

<sup>58</sup> *Id.* The IWG is comprised of the heads of the Department of Defense, Department of Health and Human Services, Department of Housing and Urban Development, Department of Labor, Department of Agriculture, Department of Transportation, Department of Justice, Department of the Interior, Department of Commerce, Department of Energy, Environmental Protection Agency, Office of Management and Budget, Office of Science and Technology Policy, Office of the Deputy Assistant to the President for Environmental Policy, Office of the Assistant to the President for Domestic Policy, National Economic Council, and Council of Economic Advisors. *Id.*

<sup>59</sup> Mank, *supra* note 40, at 105.

strategy was organized around the following principles: (1) encouraging public participation by low-income and minority communities and partnering with such communities to achieve environmental justice goals; (2) promoting environmental justice through research to improve knowledge about environmental health risks and to reduce risks through development of pollution prevention strategies; (3) improving the agency's information systems to identify and address disproportionate and adverse health and environmental effects on low-income and minority communities; (4) working with tribal governments, indigenous organizations, affected native populations, and the NEJAC to address unique environmental justice issues faced by those communities; and (5) considering and focusing on environmental justice issues through enforcement efforts and the regulatory process.<sup>60</sup>

In 2005, EPA Administrator Stephen Johnson issued a memorandum reaffirming the agency's commitment to environmental justice, including the principles set forth in Executive Order 12,898.<sup>61</sup> In order "to more fully and effectively integrate environmental justice into [the EPA's] programs, policies, and activities," Johnson's memorandum directed the agency to incorporate environmental justice considerations into its Strategic Plan for Fiscal Years 2006-2011.<sup>62</sup> This marked the first time for environmental justice to be included as part of the EPA's overall strategic plan.<sup>63</sup> The EPA under the Obama Administration recently continued this approach by incorporating environmental justice concerns into the agency's Strategic Plan for Fiscal Years 2011-2015.<sup>64</sup> The plan stresses the EPA's commitment to "reduce and prevent harmful exposures and health risks to . . . underserved, disproportionately impacted low-income, minority and tribal communities."<sup>65</sup> Consistent with the agency's continuing emphasis on environmental equity, the plan further emphasizes that "[e]nvironmental justice . . . will be achieved

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<sup>60</sup> *Id.* at 105-08.

<sup>61</sup> Hill, *supra* note 1, at 201.

<sup>62</sup> *Id.* at 202.

<sup>63</sup> *Id.* at 201.

<sup>64</sup> See U.S. Env'tl. Prot. Agency, Fiscal Year 2011-2015 EPA Strategic Plan: Achieving Our Vision 3, 30-31 (2010) [hereinafter EPA, 2011-2015 Strategic Plan].

<sup>65</sup> *Id.* at 30.

when all Americans, regardless of age, race, economic status, or ethnicity, have access to clean water, clean air, and healthy communities.”<sup>66</sup>

Over the past two years, the Obama Administration has initiated a flurry of activity related to the goal of incorporating environmental justice into the policies and activities of the EPA and other federal agencies. In July 2010, the EPA released its *Interim Guidance on Considering Environmental Justice During the Development of an Action*.<sup>67</sup> The guide is intended to assist EPA staff in determining “whether actions raise possible environmental justice concerns,” to “encourage public participation in the rulemaking process,” and to support the agency in meeting its responsibilities under Executive Order 12,898.<sup>68</sup> Specifically, the EPA states that the guide’s purpose “is to explicitly integrate [environmental justice] considerations into the fabric of EPA’s [process for developing regulations]—from rule inception through all the stages leading to promulgation and implementation—requiring that workgroups meaningfully engage with and consider the impacts on minority, low-income, and indigenous populations, and tribes.”<sup>69</sup>

Also in July 2010, the EPA released a draft plan for public comment, titled *Plan EJ 2014*, intended to further the environmental justice commitments made in the agency’s 2011-2015 Strategic Plan.<sup>70</sup> In the draft plan, the EPA described *Plan EJ 2014* as “a roadmap to help EPA integrate environmental justice into its programs.”<sup>71</sup> The draft plan characterized environmental justice as a renewed priority for the agency which challenges it “to identify better ways to address the issues facing many minority, low-income, and indigenous people with environmental justice burdens and concerns.”<sup>72</sup> To “shape [its]

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<sup>66</sup> *Id.*

<sup>67</sup> EPA, *Interim Guidance*, *supra* note 48.

<sup>68</sup> Memorandum from Lisa Heinzerling, Assoc. Adm’r, U.S. Evtl. Prot. Agency, Transmitting Interim Guidance on Considering Evtl. Justice During the Dev. of an Action to EPA Adm’rs and Counsel (July 22, 2010), *available at* [http://www.fs.fed.us/emc/nepa/includes/considering\\_ej\\_in\\_rulemaking\\_guide072010.pdf](http://www.fs.fed.us/emc/nepa/includes/considering_ej_in_rulemaking_guide072010.pdf).

<sup>69</sup> EPA, *Interim Guidance*, *supra* note 48, at i.

<sup>70</sup> U.S. Evtl. Prot. Agency, *Plan EJ 2014*, at 1 (Draft for Public Comment, July 27, 2010) [hereinafter *EPA, Draft Plan EJ 2014*] (copy on file with author).

<sup>71</sup> *Id.* at 2.

<sup>72</sup> *Id.* at 1.

work” on this challenge, the draft plan identified three goals for the agency: (1) “Protect the environment and health in overburdened communities”; (2) “Empower communities to take action to improve their health and environment”; and (3) “Establish partnerships with local, state, tribal and federal governments and organizations to achieve healthy and sustainable communities.”<sup>73</sup>

To achieve these goals, and to “advance environmental justice across EPA and the federal government,” the draft *Plan EJ 2014* identified five areas of priority: (1) incorporating environmental justice into rulemaking; (2) considering environmental justice concerns within EPA’s permitting process; (3) accelerating compliance and enforcement initiatives; (4) supporting community-based programs; and (5) fostering administration-wide action on environmental justice.<sup>74</sup> The EPA emphasized that *Plan EJ 2014*’s ultimate objective would be to unify the agency’s approach to environmental justice, thus making it “more efficient and coordinated and ultimately more effective.”<sup>75</sup> As its title suggests, the EPA intends to implement *Plan EJ 2014* by the year 2014 which will be the twentieth anniversary of the Clinton Administration’s issuance of Executive Order 12,898.<sup>76</sup>

The Obama Administration took its next step several months later, in September 2010, by formally reconvening the IWG which up until that point had been dormant for more than a decade.<sup>77</sup> The EPA touted this event as further evidence of the administration’s “recommitment to advancing the mandate of Executive Order 12898.”<sup>78</sup> Nearly a year later, in August 2011, the federal agencies and other entities constituting the IWG, and a number of agencies not originally named in Executive Order 12,898, signed the *Memorandum of Understanding on*

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<sup>73</sup> *Id.* at 1-2.

<sup>74</sup> *Id.* at 2.

<sup>75</sup> *Id.* at 2-3.

<sup>76</sup> *Id.* at 1.

<sup>77</sup> Plan EJ 2014, *supra* note 38, at 6; Press Release, U.S. Env’tl. Prot. Agency, EPA Hosts Historic Meeting on Env’tl. Justice (Sept. 22, 2010), *available at* <http://yosemite.epa.gov/opa/admpress.nsf/0/d651c10d4a830640852577a600583d81?OpenDocument>.

<sup>78</sup> *Id.*

*Environmental Justice and Executive Order 12898* (MOU).<sup>79</sup> The purposes of the MOU are to: (1) “declare the continued importance of identifying and addressing environmental justice considerations in agency programs, policies, and activities as provided in Executive Order 12898”; (2) renew the order’s process for agencies to provide public environmental justice strategies and implementation progress reports; (3) promote the effective and efficient operation of the IWG; and (4) identify specific areas of focus for agency environmental justice efforts.<sup>80</sup> The MOU requires each federal agency to post, and periodically review and update, its current “Environmental Justice Strategy” on its public webpage, to ensure that meaningful opportunity is provided to the public to submit comments and recommendations on such strategies, and to submit an “Annual Implementation Progress Report” concerning its environmental justice strategy that is also posted on the agency’s public webpage.<sup>81</sup>

In September 2011, the Obama Administration took its most significant and comprehensive step to date in pursuit of environmental justice objectives with release of the final version of *Plan EJ 2014*.<sup>82</sup> Where the July 2010 draft plan was a several pages long sketch, the final version of *Plan EJ 2014* is a nearly 180-page roadmap of the EPA’s strategy to fully implement the mandate of Executive Order 12,898 by its twentieth anniversary in 2014.<sup>83</sup> The final version of *Plan EJ 2014* breaks down into three major sections: (1) cross-agency focus areas, (2) tools development areas, and (3) a statement of intention to designate environmental justice initiatives for future inclusion in specific

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<sup>79</sup> Press Release, U.S. Env’t. Prot. Agency, Obama Admin. Advances Efforts to Protect Health of U.S. Cmty. Overburdened by Pollution (Aug. 4, 2011); Memorandum of Understanding on Env’t. Justice and Exec. Order 12898, U.S. Env’t. Prot. Agency (2011) [hereinafter Memorandum of Understanding], available at <http://www.epa.gov/compliance/ej/resources/publications/interagency/ej-mou-2011-08.pdf>.

<sup>80</sup> Memorandum of Understanding, *supra* note 79, at 2.

<sup>81</sup> *Id.* at 3.

<sup>82</sup> See EPA, Plan EJ 2014, *supra* note 38; Press Release, U.S. Env’t. Prot. Agency, EPA Releases Strategy to Protect People’s Health and the Env’t in Cmty. Overburdened by Pollution (Sept. 14, 2011); available at <http://yosemite.epa.gov/opa/admpress.nsf/0/D61877F90D74C1EF8525790B00599458> [hereinafter Press Release, EPA].

<sup>83</sup> EPA, Plan EJ 2014, *supra* note 38; Press Release, EPA, *supra* note 82.

EPA programs.<sup>84</sup> In addition, the plan expresses the EPA's commitment to pursue "long overdue, vigorous, robust, and effective implementation of Title VI of the Civil Rights Act of 1964 and other nondiscrimination statutes."<sup>85</sup> The plan characterizes compliance with such statutory civil rights obligations as "a critical part of [the agency's] efforts to advance environmental justice."<sup>86</sup>

The finalized plan's "cross-agency focus areas" are the same five priority areas identified in the draft plan.<sup>87</sup> However, each focus area in the final version of *Plan EJ 2014* includes a detailed implementation plan articulating a goal intended to be achieved by the plan, itemizing specific strategies for accomplishing that goal, and listing specific activities, deliverables, and milestones to implement each strategy.<sup>88</sup> The goals of the "cross-agency focus areas" include to: (1) "more effectively protect human health and the environment for overburdened populations by developing and implementing guidance to incorporate environmental justice into EPA's rulemaking process";<sup>89</sup> (2) "enable overburdened communities to have full and meaningful access to the permitting process and to develop permits that address environmental justice issues to the greatest extent practicable under existing environmental laws";<sup>90</sup> (3) "fully integrate consideration of environmental justice concerns into the planning and implementation of [the EPA Office of Enforcement and Compliance Assurance]'s program strategies, case targeting strategies, and development of remedies in enforcement actions to benefit overburdened communities over the next three years";<sup>91</sup>

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<sup>84</sup> EPA, Plan EJ 2014, *supra* note 38, at i, iv, vi.

<sup>85</sup> *Id.* at vi.

<sup>86</sup> *Id.*

<sup>87</sup> Compare *id.* at i-iii, with *supra* note 74 and accompanying text.

<sup>88</sup> EPA, Plan EJ 2014, *supra* note 38, at 6, 36-39 (implementation plan for "incorporating environmental justice into rulemaking"), 45-50 (implementation plan for "considering environmental justice issues in permitting"), 59-76 (implementation plan for "advancing environmental justice through compliance and enforcement"), 81-88 (implementation plan for "supporting community-based action programs"), and 94-106 (implementation plan for "fostering administration-wide action on environmental justice").

<sup>89</sup> *Id.* at 9.

<sup>90</sup> *Id.* at 11.

<sup>91</sup> *Id.* at 13.

(4) “strengthen community-based programs to engage overburdened communities and build partnerships that promote healthy, sustainable, and green communities”;<sup>92</sup> and (5) “facilitate the active involvement of all federal agencies in implementing EO 12898 by minimizing and mitigating disproportionate negative impacts while fostering environmental, public health, and economic benefits for overburdened communities.”<sup>93</sup>

*Plan EJ 2014* also carries forward four “tools development areas” (Science, Law, Information, and Resources), identified in the draft plan, and also sets forth strategies, activities, deliverables, and milestones for accomplishing the goals identified under each area.<sup>94</sup> The goals of the “tools development areas” include to: (1) “substantially support and conduct research that employs participatory principles and integrates social and physical sciences aimed at understanding and illuminating solutions to environmental and health inequalities among overburdened populations and communities in the United States”;<sup>95</sup> (2) “provide legal assistance to EPA policy makers and other Agency decision makers to advance their environmental justice objectives and achieve the Agency’s vision of using the law as a tool to advance environmental justice”;<sup>96</sup> (3) “develop a more integrated, comprehensive, efficient, and nationally consistent approach for collecting, maintaining, and using geospatial information relevant to overburdened communities”;<sup>97</sup> and (4) “develop an efficient and effective system for delivering financial and technical assistance to communities to empower them to improve their health and environment.”<sup>98</sup>

*Plan EJ 2014* contemplates that the EPA will conduct an assessment in 2014 on the progress made in achieving the goals set out in the strategy’s nine implementation plans.<sup>99</sup> This

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<sup>92</sup> *Id.* at 16.

<sup>93</sup> *Id.* at 19.

<sup>94</sup> *Id.* at 113-38 (implementation plan for “science tools development”), 148-49 (implementation plan for “legal tools development”), 153-57 (implementation plan for “information tools development”), and 163-79 (implementation plan for “resources tools development”).

<sup>95</sup> *Id.* at 21.

<sup>96</sup> *Id.* at 23.

<sup>97</sup> *Id.* at 24.

<sup>98</sup> *Id.* at 26.

<sup>99</sup> *Id.* at vi.

assessment will result in a report “on the accomplishments, lessons learned, challenges, and next steps” for the EPA’s continuing efforts to integrate environmental justice into all agency decisions.<sup>100</sup>

## II. FEDERAL POLICY ON INFORMATION AND ENVIRONMENTAL JUSTICE

The starting point for discussion of federal policy on the importance of information within the environmental justice context is Executive Order 12,898. Section 5-5 of the order is captioned “Public Participation and Access to Information.”<sup>101</sup> This portion of the order emphasizes the importance of promoting “public participation in environmental decision making and public access to health or environmental information.”<sup>102</sup> In this regard, the order requires federal agencies to “work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public.”<sup>103</sup> Further, agencies are encouraged, although not required, to translate such information deemed “crucial” for “limited English speaking populations.”<sup>104</sup> Environmental justice advocates deem such provisions critical for addressing barriers to adequate opportunities for low-income and minority communities to participate fully in environmental decision-making processes.<sup>105</sup> Problems such as literacy or language barriers, obscure or untimely official notices, and documents in technical and highly specialized language create serious accessibility obstacles to participation for environmental justice communities.<sup>106</sup>

Perhaps even more important informational aspects of Executive Order 12,898, however, are in stated requirements that agencies affirmatively generate information relevant to environmental justice considerations. Section 3-302 directs covered federal agencies to “collect, maintain, and analyze

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<sup>100</sup> *Id.*

<sup>101</sup> Exec. Order 12,898, *supra* note 55, § 5-5.

<sup>102</sup> Mank, *supra* note 40, at 104.

<sup>103</sup> Exec. Order 12,898, *supra* note 55, § 5-5(c).

<sup>104</sup> *Id.* § 5-5(b).

<sup>105</sup> *See* Cole & Foster, *supra* note 18, at 109-10.

<sup>106</sup> *Id.* at 110.

information assessing and comparing environmental and human health risks borne by populations identified by race, national origin, or income.”<sup>107</sup> Agencies are further required, “[t]o the extent practical and appropriate,” to utilize such “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.”<sup>108</sup>

In connection with the “agency-wide environmental justice strategy” required of each agency by Executive Order 12,898, covered agencies must also:

[C]ollect, maintain and analyze information on the race, national origin, income level, and other . . . appropriate information for areas surrounding facilities or sites expected to have a substantial human health, or economic effect on the surrounding populations, when such facilities or sites become the subject of a substantial Federal environmental administrative or judicial action.<sup>109</sup>

Similar information is required for areas surrounding federal facilities subject to reporting requirements under EPCRA.<sup>110</sup> Information in these latter two categories must “be made available to the public unless prohibited by law.”<sup>111</sup>

As required by Executive Order 12,898, the EPA crafted its first environmental justice strategy the following year. The EPA’s 1995 environmental justice strategy followed up on the informational foundations of Executive Order 12,898 by committing to improve the EPA’s information systems in order to identify and address adverse environmental impacts on environmental justice communities.<sup>112</sup> The 1995 strategy also committed the agency to develop improved databases to identify major facilities or sites posing significant environmental or health risks to such communities, as well as to promote Geographic Information Systems (GIS) in order to better identify such

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<sup>107</sup> Exec. Order 12,898, *supra* note 55, § 3-302(a).

<sup>108</sup> *Id.*

<sup>109</sup> *Id.* § 3-302(b).

<sup>110</sup> *Id.* § 3-302(c).

<sup>111</sup> *Id.* §§ 3-302(b), (c)(2).

<sup>112</sup> Mank, *supra* note 40, at 107.

communities.<sup>113</sup> In addition, the 1995 strategy pledged that the EPA would improve its information systems to encourage dual communication between the agency and public users of its information and would further produce educational materials to promote greater understanding of such information.<sup>114</sup>

The EPA's current Strategic Plan for Fiscal Years 2011-2015 also places substantial importance on promotion of public access to information that, among other things, would assist in identifying and addressing environmental justice concerns. Included among the strategic goals stated in the EPA's current plan is to "[e]ngage and empower communities and partners, including those who have been historically under-represented, in order to support and advance environmental protection."<sup>115</sup> To accomplish this goal, the EPA makes a number of commitments related to promoting public access to information within an environmental justice context, including: (1) "Educate and empower individuals, communities, and Agency partners in decision making through public access to environmental information and data"; (2) "Ensure that the Agency's regulations, policies, budget, and decision-making processes are transparent and accessible through increased access to environmental data sources, community right-to-know tools, and direct stakeholder engagement"; and (3) "Encourage citizens to understand the complexities and impacts of environmental issues and environmental stewardship, and provide avenues and tools that enhance their ability to participate in processes that could affect them."<sup>116</sup>

In a similar vein, the EPA's current strategic plan emphasizes that information gaps regarding facility releases and compliance by polluters increase the difficulty "for communities to know what pollution is occurring in their own neighborhoods."<sup>117</sup> Thus, the EPA "recognizes that [it] must improve facility monitoring of pollution and make that information available to the public using twenty-first century technologies including more

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<sup>113</sup> *Id.*

<sup>114</sup> *Id.*

<sup>115</sup> EPA, 2011-2015 Strategic Plan, *supra* note 64, at 29.

<sup>116</sup> *Id.*

<sup>117</sup> *Id.* at 41.

comprehensive electronic reporting.”<sup>118</sup> This is consistent with other areas of the strategic plan in which the agency pledges to make “more information available to the public in an easy-to-use, understandable format so the public can demand better facility and government performance.”<sup>119</sup>

The EPA’s current comprehensive environmental justice strategy—*Plan EJ 2014*—highlights the importance of information, and, in particular, the *generation* of necessary information, in addressing environmental justice challenges. In this regard, *Plan EJ 2014* emphasizes that working “to ensure that all parts of society have access to accurate information sufficient to effectively participate in managing human health and environmental risks” is an important component of the EPA’s effort to achieve environmental justice priorities.<sup>120</sup> Thus, as part of the goal to ensure that environmental justice communities are able to participate fully and meaningfully in permitting processes, *Plan EJ 2014* commits to the development of tools to fully inform such communities “about the potential impacts of permitted activities and [allow them to] understand the information they receive.”<sup>121</sup> Such tools will include enhanced permitting public participation guidance (including on-line support), public outreach and notification efforts, production of plain language documents and appropriate language translations, and guidance on public use of existing and proposed EPA environmental justice screening tools.<sup>122</sup>

Similarly, as part of *Plan EJ 2014*’s goal to advance environmental justice through compliance and enforcement efforts, the EPA pledges to increase efforts “to communicate with affected communities and the public about enforcement strategies and actions that may affect overburdened communities.”<sup>123</sup> Emphasizing that environmental justice communities “have a legitimate need to be informed,” the plan reflects the EPA’s commitment “to increase outreach to [such] communities and to

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<sup>118</sup> *Id.*

<sup>119</sup> *Id.* at 39.

<sup>120</sup> EPA, *Plan EJ 2014*, *supra* note 38, at 2.

<sup>121</sup> *Id.* at 45.

<sup>122</sup> *Id.* at 51-53.

<sup>123</sup> *Id.* at 68.

provide more information about environmental and public health problems caused by failure to comply with federal environmental laws, efforts to address those problems, and available judicial and administrative solutions to those problems that can address the communities' concerns and needs."<sup>124</sup> Activities identified in the plan in support of this commitment include providing "affected communities with information about enforcement actions and meaningful opportunities for input on potential environmental justice concerns and remedies to be implemented," and improving "website information and other public information materials to explain EPA's site cleanup enforcement processes."<sup>125</sup>

In the "Tools Development" section of the July 2010 draft of *Plan EJ 2014*, the EPA pledged to "focus on developing the scientific, legal, and data and information foundation that support environmental justice analysis, community work, and communications and stakeholder engagement."<sup>126</sup> Regarding development of this "data and information foundation," the draft plan stated, "EPA is working to develop a common mapping platform and nationally consistent screening and targeting tool to enhance [environmental justice] analysis and decision-making."<sup>127</sup> The EPA asserted that these endeavors would "enhance efforts to provide accessible information to communities and foster transparency."<sup>128</sup> In a draft implementation plan for development of this screening tool released in March 2011, the EPA asserted that the tool would normalize and increase the consistency of the information and methods utilized by agency-wide environmental justice screening efforts.<sup>129</sup>

In furtherance of these pledges, the September 2011 final version of *Plan EJ 2014* includes a separate section on "Information Tools Development."<sup>130</sup> The section notes that, as part of agency efforts to implement the mandate of Executive Order 12,898, the EPA has "developed a variety of internal

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<sup>124</sup> *Id.*

<sup>125</sup> *Id.* at 69.

<sup>126</sup> EPA, Draft Plan EJ 2014, *supra* note 70, at 2.

<sup>127</sup> *Id.* at 6.

<sup>128</sup> *Id.*

<sup>129</sup> U.S. Env'tl. Prot. Agency, Office of Policy, Plan EJ 2014 Information Tools Development: Draft Implementation Plan 1 (2011).

<sup>130</sup> *See* EPA, Plan EJ 2014, *supra* note 38, at 150-58.

environmental justice screening tools and other Geographic Information Systems (GIS) applications,” including most notably the Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT) and EJView.<sup>131</sup> The plan emphasizes that, in addition to these previous efforts, the “EPA is developing a suite of tools, data, and services known as EPA’s GeoPlatform that will help coordinate and consolidate mapping activities, applications, and data across the Agency.”<sup>132</sup> The EPA’s GeoPlatform is intended to support components of the nationally consistent environmental justice screening tool under development in furtherance of the agency’s efforts to meet the goals of *Plan EJ 2014*.<sup>133</sup>

The primary goal established by the “Information Tools Development” section’s implementation plan is the development of “a more integrated, comprehensive, efficient, and nationally consistent approach for collecting, maintaining, and using geospatial information relevant to overburdened communities.”<sup>134</sup> The strategies identified to accomplish this goal include development of both the GeoPlatform and the nationally consistent environmental justice screening tool and incorporation of appropriate elements of the screening tool into the GeoPlatform.<sup>135</sup>

*Plan EJ 2014* describes the GeoPlatform as a project to “coordinate activities, applications, and data across the Agency.”<sup>136</sup> The EPA asserts that the GeoPlatform is intended to provide “ultimately everyone” the ability to perform relevant geospatial environmental justice analysis “using common data, tools, and techniques.”<sup>137</sup> The purpose of the related environmental justice screening tool is identified as providing, “for locations across the United States, a comprehensive and nationally consistent tool for presenting available environmental

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<sup>131</sup> *Id.* at 151. For discussion of EJSEAT and EJView, see *infra* notes 150-89 and accompanying text.

<sup>132</sup> *Id.*

<sup>133</sup> *Id.*

<sup>134</sup> *Id.*

<sup>135</sup> *Id.*

<sup>136</sup> *Id.* at 153.

<sup>137</sup> *Id.*

and demographic data.”<sup>138</sup> The plan emphasizes that this device “will serve as a national baseline screening tool, which can then be supplemented with additional information and on-the-ground experience to help identify overburdened communities that may warrant additional investigation by EPA to help reduce [environmental] risk and improve public health.”<sup>139</sup>

### III. ENVIRONMENTAL JUSTICE INFORMATION: TOOLS AND SOURCES

In general, the EPA has long viewed increasing public disclosure of and access to environmental information as an important strategic goal to advance environmental protection.<sup>140</sup> In 1998, the EPA created the Office of Environmental Information “to advance the creation, management, and use of data as a strategic resource to advance public health and environmental protection, . . . and improve the public’s access to information about environmental conditions.”<sup>141</sup> Advocates of “informational regulation” argue that public distribution of information may lead to improvement in the environmental performance of business and industry.<sup>142</sup> Public information disclosure has the potential to encourage beneficial corporate environmental behavioral change through social and market-based pressures created by informal monitoring regimes triggered by such disclosure.<sup>143</sup> These informal regimes include external monitoring performed by government regulators, local communities, industry competitors, economic markets, and self-monitoring from firm managers.<sup>144</sup>

The perceived success of informational regulatory strategies in creating conditions that can improve the environmental

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<sup>138</sup> *Id.* at 155.

<sup>139</sup> *Id.* at 155-56.

<sup>140</sup> Case, *Corporate Environmental Reporting*, *supra* note 5, at 382 & n.14.

<sup>141</sup> Nat’l Acad. of Pub. Admin., *Environment.Gov: Transforming Environmental Protection for the 21st Century* 170 (2000), available at <http://www.epa.gov/evaluate/pdf/environdotgov.pdf>; Case, *Corporate Environmental Reporting*, *supra* note 5, at 382 n.14.

<sup>142</sup> Case, *Environmental Information as Regulation*, *supra* note 15, at 10,785; Case, *Corporate Environmental Reporting*, *supra* note 5, at 381 & n.11.

<sup>143</sup> Karkkainen, *supra* note 15, at 261-62; Case, *Environmental Information as Regulation*, *supra* note 15, at 10,785-86.

<sup>144</sup> Karkkainen, *supra* note 15, at 261-62, 295-97, 309-12, 316, 323-27; Case, *Environmental Information as Regulation*, *supra* note 15, at 10,785-86.

performance of business and industry has encouraged even greater public demands for access to environmental information.<sup>145</sup> This perception is, as discussed below, largely fueled by the relative successes of the Toxics Release Inventory (TRI) created in 1986 by EPCRA.<sup>146</sup> Further, the belief that the public has a fundamental right to know about pollution problems and other environmental hazards in their communities has also strongly contributed to increased demands for publicly available environmental information.<sup>147</sup>

Thus, over the last several years, the amount and types of environmental information made available to the public have grown considerably. Similarly, much greater use is being made of that information by federal and state governments, environmental groups, communities, and concerned citizens. More environmental information is currently produced and made publicly available by the EPA and many other information providers than ever before.<sup>148</sup> Moreover, evolutionary advances in internet-based information sharing technologies have made environmental information far easier to produce and make publicly available than was possible in the past.<sup>149</sup> This substantial growth in the availability and accessibility of environmental information has very obvious implications for efforts to identify and address environmental justice concerns in both the public and private sectors. The following discussion explores several examples of environmental justice informational tools or sources of publicly accessible environmental information that may be of value for environmental justice related purposes.

#### *A. EPA's Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT)*

The EPA has been working since 2003 to develop the Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT) for purposes of identifying communities experiencing disproportionate environmental and health burdens and focusing

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<sup>145</sup> Case, *Corporate Environmental Reporting*, *supra* note 5, at 381-82.

<sup>146</sup> See *infra* notes 216-22 and accompanying text.

<sup>147</sup> See Echeverria & Kaplan, *supra* note 8, at 582-91.

<sup>148</sup> See Weintraub, *supra* note 9, at 266-67.

<sup>149</sup> *Id.*

agency enforcement and compliance efforts in such areas.<sup>150</sup> The EPA asserts that “a nationally consistent approach to identifying areas with potential environmental justice concerns is necessary to accomplish” its strategic environmental justice goals.<sup>151</sup> The EPA’s Office of Enforcement and Compliance Assurance (OECA) completed a prototype of the EJSEAT in December 2007.<sup>152</sup> As of the writing of this article, the EPA’s website indicated that the “EJSEAT is currently a draft tool in development, intended for internal EPA use only.”<sup>153</sup>

In developing the EJSEAT, the OECA seeks to identify factors that can indicate communities experiencing disproportionate environmental burdens “based on nationally consistent and available data.”<sup>154</sup> As presently configured, the EJSEAT utilizes a set of eighteen such individual environmental justice indicators, grouped into four categories: demographic, environmental, health, and compliance.<sup>155</sup> All information for each indicator is derived from publicly available information databases.<sup>156</sup> Following a formulaic process of combining, averaging, and normalization, the indicators in the various categories combine to produce an EJSEAT score which “form[s] the basis of ranking census tracts for their environmental justice potential.”<sup>157</sup>

The EJSEAT’s demographic indicators are taken from census data, and include: (1) percentage of individuals below the poverty line; (2) percentage of individuals over twenty-five years of age without a high school diploma; (3) percentage of individuals who are children under five-years of age; (4) percentage of individuals

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<sup>150</sup> Nat’l Env’tl. Justice Advisory Council, *Nationally Consistent Environmental Justice Screening Approaches* app. A at 1 (May 2010) [hereinafter NEJAC, *Environmental Justice Screening Approaches*]; *available at* <http://www.epa.gov/compliance/ej/resources/publications/nejac/ej-screening-approaches-rpt-2010.pdf>.

<sup>151</sup> *Id.*

<sup>152</sup> *Id.*

<sup>153</sup> *Environmental Justice: The Environmental Justice Strategic Enforcement Assessment Tool (EJSEAT)*, EPA.gov, <http://www.epa.gov/compliance/ej/resources/policy/ej-seat.html> (last visited Jan. 20, 2012).

<sup>154</sup> NEJAC, *Environmental Justice Screening Approaches*, *supra* note 150, app. A, at 1.

<sup>155</sup> *Id.* at 3.

<sup>156</sup> *Id.*

<sup>157</sup> *Id.* at 4.

over sixty-four years of age; (5) percentage of “linguistically isolated” households; and (6) percentage of individuals who are minorities.<sup>158</sup> Environmental indicators are taken from the National Air Toxics Assessment and Risk Screening Environmental Indicators (RSEI) databases, and include information on cancer risks, neurological and respiratory hazards, particulate matter and ozone concentrations, and RSEI risk-related scores for all federally permitted industrial facilities in each census tract.<sup>159</sup> Health indicators are based on county-level data and include infant mortality and low birth weight rates.<sup>160</sup> Compliance indicators are derived from various databases and include facility registration system (FRS) facilities per square mile, and computed measures of inspections, violations, and formal actions.<sup>161</sup>

In May 2010, the National Environmental Justice Advisory Council (NEJAC)<sup>162</sup> issued a report titled *Nationally Consistent Environmental Justice Screening Approaches* reflecting a comprehensive and critical analysis of the EJSEAT.<sup>163</sup> The report had been previously requested by the OECA in 2008 to provide “advice and recommendations from the NEJAC to improve EJSEAT’s comprehensiveness, efficacy and accuracy.”<sup>164</sup> Although noting that the desire to “improve consistency in EPA’s environmental justice program is commendable,” the NEJAC’s report is highly critical of the EJSEAT, describing it as an extremely limited and, at best, “coarse screening tool.”<sup>165</sup> The report contains well over 100 areas of concern and recommendations for improvement of the EJSEAT.

Among the most significant of the NEJAC’s criticisms is that the informational databases that the EJSEAT draws on are insufficient for comprehensive and conclusive environmental justice analysis. The NEJAC emphasizes that the “EJSEAT contains a wide range of environmental information, but it is not

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<sup>158</sup> *Id.* at 3-4.

<sup>159</sup> *Id.* at 4.

<sup>160</sup> *Id.*

<sup>161</sup> *Id.*

<sup>162</sup> *See supra* note 54 and accompanying text.

<sup>163</sup> NEJAC, *Environmental Justice Screening Approaches*, *supra* note 150.

<sup>164</sup> *Id.* at 1.

<sup>165</sup> *Id.* at 1, 5.

exhaustive.”<sup>166</sup> Of particular concern are the limitations of the federal informational databases utilized by the EJSEAT, because such data sources “do not adequately capture a number of activities within and conditions endemic to environmental justice areas.”<sup>167</sup> Among the numerous informational omissions emphasized by the NEJAC include: impacts from facilities and land use activity that occur without federally required air permits; activities exempt from EPCRA’s TRI reporting; activities of “minor facilities” under the Clean Air Act and Clean Water Act; Clean Water Act “nonpoint” source water pollution; Clean Air Act mobile sources; small quantity hazardous waste generators; underground tanks; closed or abandoned facilities and remedial sites; and facilities exempt from permitting requirements because of small size, grandfathering, or exempted status.<sup>168</sup> The NEJAC also criticizes the EJSEAT for its failure to “include qualitative data” that would “provide important additional information for evaluating the nature and severity of risks” faced by environmental justice communities.<sup>169</sup>

Because of these deficiencies, the NEJAC asserts that the “EJSEAT is not able to capture sufficient information to assure comprehensive identification of all environmental justice communities.”<sup>170</sup> Indeed, the EJSEAT is often unable to “pinpoint environmental justice communities that are fairly small geographically, such as neighborhoods or areas within a metropolitan area, or rural communities.”<sup>171</sup> Thus, the NEJAC’s report urges the OECA to view the EJSEAT as “only a coarse screen” and not a tool that provides “a conclusion that any particular community is or is not an environmental justice community.”<sup>172</sup> The NEJAC thus urges “caution” in use of the

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<sup>166</sup> *Id.* at 7.

<sup>167</sup> *Id.* at 6.

<sup>168</sup> *Id.*

<sup>169</sup> *Id.* at 7.

<sup>170</sup> *Id.* at 6.

<sup>171</sup> *Id.*

<sup>172</sup> *Id.* at 17. The NEJAC report makes a distinction, however, between prospective and retrospective analysis of environmental justice areas. *Id.* at 5. For analysis that looks to past treatment of an environmental justice area, the report notes that the “EJSEAT is a good way to see if priority environmental justice areas receive relatively more or fewer inspections, faster or slower cleanup, or more or fewer small grants or Brownfields grants.” *Id.* Further, a retrospective EJSEAT “assessment can offer

EJSEAT to identify environmental justice communities, arguing that such efforts must be supplemented by additional, localized information and other analysis that compensates for the screening tool's serious informational limitations.<sup>173</sup>

In the final version of *Plan EJ 2014*, the EPA stated that it would “[r]eevaluate use of [the] EJSEAT, as appropriate, in response to [the] recommendations of the NEJAC.”<sup>174</sup> The EPA noted that this reevaluation of the EJSEAT would also be based on the outcome of work by the EPA’s agency-wide Environmental Justice Screening Committee in development of the nationally consistent environmental justice screening tool called for in *Plan EJ 2014*.<sup>175</sup> The EPA indicates the EJSEAT will continue to be utilized as the agency awaits the work of the screening committee, although changes to the EJSEAT based on the NEJAC’s recommendations may be made on an interim basis.<sup>176</sup> However, echoing criticisms reflected in the NEJAC’s report, *Plan EJ 2014* emphasizes that screening tools such as the EJSEAT and EJView, discussed below, “only provide a starting point for analysis and decision making as to whether a community has environmental justice concerns or whether any enforcement action is appropriate.”<sup>177</sup> Before any such conclusions are drawn, the plan asserts that a process of “ground truthing” which takes into consideration other relevant and available information must necessarily occur.<sup>178</sup>

### B. EPA’s EJView

Consistent with the agency’s pledge in its 1995 environmental justice strategy to promote Geographic Information

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insights into whether the existing EPA programs are working to alleviate disparities in environmental justice areas, or if more effort or different approaches are needed.” *Id.* For analysis that seeks to identify environmental justice areas for purposes of determining future agency action, however, the NJEAC report asserts that the EJSEAT is significantly limited in its usefulness due to its informational deficiencies. *Id.* at 5-6.

<sup>173</sup> *Id.* at 7, 16, 17.

<sup>174</sup> EPA, *Plan EJ 2014*, *supra* note 38, at 63.

<sup>175</sup> *Id.* at 63-64, 155-56.

<sup>176</sup> *Id.* at 63-64, 65, 73.

<sup>177</sup> *Id.* at 63.

<sup>178</sup> *Id.*

Systems (GIS) in order to better identify disproportionately burdened communities, the EPA in 2010 released EJView, formerly known as the Environmental Justice Geographic Assessment Tool.<sup>179</sup> EJView is a publicly accessible mapping tool that can be used to create maps and generate detailed reports on environmental conditions in virtually any community in the United States.<sup>180</sup> Maps and reports are generated based on the geographic and data sets chosen by the user among data categories similar to those utilized by the EJSEAT: demographic, health, environmental, and facility-level data.<sup>181</sup>

Demographic information accessible through EJView is derived from census data.<sup>182</sup> Searchable fields include population density, per capita income, percentages of minorities and below poverty residents, education, age, and percentage of English speakers.<sup>183</sup> Health data includes estimates of cancer, respiratory, and neurological risks provided through the EPA's National-Scale Air Toxics Assessment (NATA), and data on infant mortality and low birth weight rates.<sup>184</sup> The environmental and facility-level information draws on data reported to the EPA through such systems as RCRAInfo (hazardous wastes); the Air Facility System (Clean Air Act compliance and permit data); the Permit Compliance System (Clean Water Act discharge data); the TRI, the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) (Superfund sites); the Assessment, Cleanup, and Redevelopment Exchange System (ACRES) (Brownfields data); and water monitoring data from the United States Geological Survey and the EPA's Storage and Retrieval (STORET) System.<sup>185</sup>

Unlike the EJSEAT, the EPA does not appear to intend EJView to be part of any formalized agency screening process for

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<sup>179</sup> *EJView*, EPA.gov, <http://epamap14.epa.gov/ejmap/entry.html> (last visited Jan. 20, 2012); EPA, Plan EJ 2014, *supra* note 38, at 62.

<sup>180</sup> Hill, *supra* note 1, at 200-01.

<sup>181</sup> *EJView: About EJView*, EPA.gov, <http://epamap14.epa.gov/ejmap/help/help.html?tab=8> (last visited Jan. 20, 2012).

<sup>182</sup> *EJView: Description of Map Features*, EPA.gov, <http://epamap14.epa.gov/ejmap/help/help.html?tab=3> (last visited Jan. 20, 2012).

<sup>183</sup> *Id.*

<sup>184</sup> *Id.*

<sup>185</sup> *Id.*

identification of and targeting of enforcement or compliance resources in environmental justice communities. Instead, the agency's website states that EJView is "targeted at local community groups" and is "designed for the public to identify potential environmental justice areas – or disadvantaged communities that are being unduly exposed to environmental harms."<sup>186</sup> The EPA stresses that the tool is designed to allow public identification of areas based on geographic and environmental factors the user self-selects and deems "significant."<sup>187</sup> The agency further notes that members of the public can use EJView "to create an information packet with maps and reports to support grant writing, community newsletter materials, and [for other purposes]."<sup>188</sup> Thus, EJView appears to be primarily intended to further the informational goals of public access and right-to-know included in the EPA's 2011-2015 Strategic Plan.<sup>189</sup>

### C. EPA's Community Cumulative Assessment Tool (CCAT)

*Plan EJ 2014's* "Science Tools Development" implementation plan outlines an initiative of the EPA's Office of Research and Development to develop the Community Cumulative Assessment Tool (CCAT), a web-based tool for evaluating "physiological and socioeconomic stressors that result in cumulative impacts in U.S. communities and populations."<sup>190</sup> This tool is intended to "improve the capacity of EPA regional risk assessors to assist communities in understanding the complexity of risk, and provide the means by which to identify priorities."<sup>191</sup> The CCAT is also expected to benefit community health advocates and environmental justice groups by providing public access to improved information to better understand local environmental conditions through data drawn from EPA's informational databases.<sup>192</sup> Such access is anticipated to "increase community capacity to assess their

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<sup>186</sup> *EJView: How to Use This Page*, EPA.gov (Apr. 2010), <http://epamap14.epa.gov/ejmap/help/ejHowToUsePage.html>.

<sup>187</sup> *Id.*

<sup>188</sup> *Id.*

<sup>189</sup> *See supra* notes 115-19 and accompanying text.

<sup>190</sup> EPA, *Plan EJ 2014*, *supra* note 38, at 116.

<sup>191</sup> *Id.* at 119.

<sup>192</sup> *Id.* at 118.

environment” and to promote collaboration between communities and agency experts and pursuit of risk reduction strategies to improve public health and environmental conditions.<sup>193</sup>

*D. Emergency Planning and Community Right-to-Know Act (EPCRA) and the Toxics Release Inventory (TRI)*

Congress enacted the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) as a national legislative program for toxic chemical risk and community safety. EPCRA establishes requirements for federal, state, and local governments and industry regarding emergency planning and “community right-to-know” reporting on hazardous and toxic chemicals and substances.<sup>194</sup> EPCRA is designed to increase the public’s knowledge and access to information on chemical hazards at individual facilities, the uses made of such chemicals, and the manner in which they are released into the environment.<sup>195</sup> States and local communities work with industry under EPCRA to utilize the information generated to improve safety and protect public health and the environment.<sup>196</sup>

EPCRA was enacted in response to public concerns over the environmental and safety hazards inherent in the storage and handling of toxic chemicals.<sup>197</sup> Such public concern intensified following accidental chemical releases in the mid-1980s by Union Carbide plants in Bhopal, India and Institute, West Virginia. The December 1984 Bhopal tragedy was the far more serious of the two events; a release of methyl isocyanate that killed over 3,000 persons and severely injured scores of thousands of others.<sup>198</sup> In contrast, no deaths occurred in an August 1985 release of aldicarb oxime at Union Carbide’s West Virginia plant, and the scores of residents adversely affected were only briefly hospitalized.<sup>199</sup> However, following so closely the already impassioned controversy over Bhopal, and following industry assurances that a similar

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<sup>193</sup> *Id.*

<sup>194</sup> *See* Weintraub, *supra* note 9, at 272.

<sup>195</sup> *Id.*

<sup>196</sup> *Id.*

<sup>197</sup> Case, *Corporate Environmental Reporting*, *supra* note 5, at 385.

<sup>198</sup> Percival et al., *supra* note 10, at 323.

<sup>199</sup> *Id.*

accident could not happen in the United States, the West Virginia incident, at the very least, strengthened congressional resolve to affirmatively respond to Bhopal.<sup>200</sup> That response came in the form of EPCRA's provisions requiring comprehensive emergency planning for the potential risks of chemical storage and handling and the reporting of chemical releases.

The programs created by EPCRA produce a wealth of publicly accessible information relevant to efforts to identify and address environmental justice concerns.<sup>201</sup> Perhaps the most significant of these programs in the environmental justice context is EPCRA's Toxics Release Inventory (TRI). TRI information has been described as "one of the most important sources of environmental release information for activists, politicians, and other people concerned with human exposure to dangerous chemicals."<sup>202</sup> Moreover, "because TRI information can be easily correlated to demographic or geographic information, the information has been particularly valuable in environmental justice controversies."<sup>203</sup>

EPCRA requires certain companies to submit annual data to the EPA on amounts of certain toxic chemicals released into the air, water, land, or transferred off-site.<sup>204</sup> The EPA maintains this data in a national computer database—the TRI—accessible by the public, primarily through the Internet.<sup>205</sup> The TRI database contains detailed information on more than 650 chemicals and chemical categories that over 20,000 industrial and other facilities release annually through disposal or other waste management and recycling practices.<sup>206</sup>

The national TRI database provides public access to information about toxic chemical releases and other waste management activities at a local, state, regional, and national level. The public, including communities and environmental

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<sup>200</sup> *Id.*

<sup>201</sup> See Weintraub, *supra* note 9, at 272, 273-75.

<sup>202</sup> *Id.* at 276.

<sup>203</sup> *Id.*

<sup>204</sup> Case, *Corporate Environmental Reporting*, *supra* note 5, at 385.

<sup>205</sup> *Id.*

<sup>206</sup> U.S. Env'tl. Prot. Agency, 2009 Toxics Release Inventory National Analysis Overview 3-4 (2009) [hereinafter EPA, 2009 Toxics Release Inventory], available at <http://www.epa.gov/tri/tridata/tri09/nationalanalysis/overview/2009TRINAOverviewfinal.pdf>.

justice advocates, can utilize TRI data for a variety of purposes, including informing themselves of risks and concerns in specific communities.<sup>207</sup> For example, TRI data can inform citizens of whether they live near businesses that use toxic chemicals or whether toxic chemicals are being released near neighborhoods, local schools, or public sources of drinking water. TRI information can also be utilized by federal, state, and local governments to identify and gain a better understanding of potential concerns, to prioritize among those concerns, and to assess ongoing pollution prevention activities.<sup>208</sup> Researchers, public interest groups, the media, as well as others are able to access the information for various purposes, including environmental justice concerns, as well.<sup>209</sup>

The EPA provides public access to TRI data over the Internet through the *TRI Explorer*.<sup>210</sup> The *TRI Explorer* is a search engine capable of generating reports of TRI data summarized for individual states or the entire country, or reports on releases, waste transfers, or waste quantities grouped by state, by industry classification, by specific facility name, or by zip code.<sup>211</sup> Another option provided by the EPA for public utilization of TRI information is the TRI.NET data engine.<sup>212</sup> TRI.NET is an application that can be downloaded on a personal computer to allow for more interactive and user-friendly analyses of TRI data.<sup>213</sup> For example, TRI.NET utilizes mapping technologies (such as Google Maps, Google Earth, or Virtual Earth) allowing users to visualize where TRI releases are occurring.<sup>214</sup> TRI.NET also includes the “My TRI Neighborhood” feature allowing searches to limit results to facilities releasing TRI chemicals located within a specified distance of a specific street address.<sup>215</sup>

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<sup>207</sup> See Echeverria & Kaplan, *supra* note 8, at 583, 590.

<sup>208</sup> See *id.* at 583.

<sup>209</sup> See *id.*

<sup>210</sup> *TRI Explorer: Release Reports*, EPA.gov, [http://iaspub.epa.gov/triexplorer/tri\\_release.chemical](http://iaspub.epa.gov/triexplorer/tri_release.chemical) (last visited Jan. 20, 2012).

<sup>211</sup> See *id.*

<sup>212</sup> *TRI.Net Data Engine (TRI.Net)*, EPA.gov, <http://www.epa.gov/tri/tridotnet/index.html> (last visited Jan. 20, 2012).

<sup>213</sup> See *id.*

<sup>214</sup> See *id.*

<sup>215</sup> See *id.*

This allows the public to visualize facilities releasing TRI chemicals in small communities and neighborhoods.

Public access to TRI information has been credited with influencing companies to make voluntary reductions in releases of chemicals subject to the reporting requirements.<sup>216</sup> Manufacturing facilities have been required to report to the TRI program since 1987.<sup>217</sup> The EPA asserts that public dissemination of information from the TRI database has induced companies to sharply reduce overall levels of releases of TRI chemicals since the program's beginning.<sup>218</sup> These reductions in reported releases have occurred notwithstanding the fact that the releases themselves may be completely lawful under existing environmental regulatory programs. Importantly, EPCRA's TRI reporting requirement does not itself make the releases of toxic chemicals to air, water, or land unlawful. The requirement is simply that the releases be annually reported and that the information subsequently be made publicly available.

Although TRI disclosures have indeed led to significant voluntary reductions in releases of reported chemicals, uncertainty exists as to the specific reasons the annual TRI reporting requirements have had such an effect. Some limited studies by economists have shown that public disclosure of negative environmental information by companies can motivate them to improve their future environmental performance.<sup>219</sup> In theory, post-disclosure pressures brought to bear by non-governmental forces, particularly economic markets and public opinion, create market incentives that positively affect the behavior of environmental actors.<sup>220</sup> However, the effect that information disclosure has on these market forces is poorly understood at best.<sup>221</sup> Even so, public disclosure of environmental information is championed by advocates of "reflexive

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<sup>216</sup> Case, *Corporate Environmental Reporting*, *supra* note 5, at 385-86; Weintraub, *supra* note 9, at 276.

<sup>217</sup> Shameek Konar & Mark A. Cohen, *Information as Regulation: The Effect of Community Right to Know Law on Toxic Emissions*, 32 J. Envtl. Econ. & Mgmt. 109, 113 (1997).

<sup>218</sup> Case, *Corporate Environmental Reporting*, *supra* note 5, at 385 & n.31.

<sup>219</sup> Case, *Environmental Information as Regulation*, *supra* note 15, at 10,777-79.

<sup>220</sup> Case, *Corporate Environmental Reporting*, *supra* note 5, at 383.

<sup>221</sup> *Id.*

environmental law” theory, which seeks to create conditions supporting environmentally beneficial, self-regulatory behavior by corporate and industry actors.<sup>222</sup>

Of substantial importance to environmental justice concerns, however, major weaknesses in the TRI program have subjected this particular information disclosure tool to significant criticism. Of the chemicals that fall within the TRI program, only a relatively small fraction of the sources of releases of these chemicals come within the scope of the reporting requirements.<sup>223</sup> This is due to the fact that only certain industry sectors (primarily major industrial sources) and businesses of a certain size (primarily large) are covered by the TRI requirements.<sup>224</sup> Additionally, only a miniscule fragment of chemicals used commercially in the United States (less than one-percent) fall within the scope of the TRI’s coverage, including scores of which may meet or exceed hazards posed by chemicals which are covered.<sup>225</sup> Further, even many otherwise covered sources release covered chemicals in amounts that fall under TRI reporting thresholds.<sup>226</sup> In its evaluation of the EJSEAT, which relies in significant part on TRI data, the NEJAC focused considerable attention on these and other limitations on the scope of information conveyed by the TRI.<sup>227</sup> As a result of such limitations, the NEJAC warns that “many facilities and activities of concern to environmental justice communities will not be captured” by the EJSEAT’s reliance on TRI data.<sup>228</sup>

#### *E. Envirofacts Data Warehouse*

The Envirofacts Data Warehouse is a publicly accessible environmental information database created and operated by the EPA with many potential applications for both public and private

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<sup>222</sup> See Case, *Changing Corporate Behavior*, *supra* note 15, at 105-06.

<sup>223</sup> William F. Pedersen, *Regulation and Information Disclosure: Parallel Universes and Beyond*, 25 Harv. Envtl. L. Rev. 151, 164 (2001).

<sup>224</sup> *Id.*

<sup>225</sup> *Id.* at 169 & n.68, 199 & n.146.

<sup>226</sup> *Id.* at 165-69.

<sup>227</sup> See NEJAC, *Environmental Justice Screening Approaches*, *supra* note 150, at 12-13.

<sup>228</sup> *Id.* at 13.

users of environmental justice related data.<sup>229</sup> Envirofacts provides a single point of public access to information collected by the EPA under its many national environmental regulatory programs. Envirofacts integrates information from several different EPA databases that collect information from facilities required to report about such activities as hazardous waste disposal, air pollution emissions, toxic chemical releases, Superfund sites, or water discharge permits.<sup>230</sup> Individual users of the Envirofacts program may conduct broad searches for information within all of these integrated databases simultaneously. For example, users may retrieve all information in the entire Envirofacts database about environmental regulatory activities in their area by simply entering either a specific zip code or the name of a city or county.<sup>231</sup> Users may also conduct more narrowly focused searches for information within specific databases in the system. For example, users may retrieve information about specific facilities or groups of facilities within specific subject areas included in the database under such discrete topics as Water, Air, Waste, Land, and Toxics.<sup>232</sup> Several of the specific information databases and data retrieval options are discussed below.

### 1. Water

Envirofacts integrates water information from such EPA databases as the Safe Drinking Water Information System (SDWIS), the Permit Compliance System (PCS), and the Information Collection Rule (ICR).<sup>233</sup> The SDWIS contains information about violations of EPA's drinking water regulations by public water systems.<sup>234</sup> The PCS includes information on companies which have been issued permits to discharge waste

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<sup>229</sup> *Envirofacts*, EPA.gov, <http://www.epa.gov/enviro/> [hereinafter EPA, *Envirofacts*] (last visited Jan. 20, 2012).

<sup>230</sup> See *Envirofacts: About the Data*, EPA.gov, <http://www.epa.gov/enviro/facts/qmr.html> [hereinafter EPA, *Envirofacts: About the Data*] (last visited Jan. 20, 2012).

<sup>231</sup> See EPA, *Envirofacts*, *supra* note 229.

<sup>232</sup> See EPA, *Envirofacts: About the Data*, *supra* note 230.

<sup>233</sup> *Id.*

<sup>234</sup> *Envirofacts: SDWIS*, EPA.gov, <http://www.epa.gov/enviro/facts/sdwis/index.html> (last visited Jan. 20, 2012).

water into rivers.<sup>235</sup> Information can be retrieved on when permits were issued and expire, how much waste a company is permitted to discharge, and monitoring data showing what the company has actually discharged.<sup>236</sup> The ICR data was collected pursuant to a national research project by EPA to support development of national drinking water standards.<sup>237</sup> The IRC data reflects information on sources of physical, chemical, and microbial contaminants at national, state, and local water system levels.<sup>238</sup>

## 2. Air

Envirofacts databases related to air include the Aerometric Information Retrieval System (AIRS), a computer based repository for information about air pollution in the United States.<sup>239</sup> AIRS is operated by the EPA and state and local air pollution control agencies.<sup>240</sup> The information included in the AIRS database comes from reporting by various stationary sources of air pollution, such as electric power plants, factories, and other industrial sources, regarding the air pollutants they produce.<sup>241</sup>

## 3. Waste

Envirofacts contains Biennial Reporting System information on the generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage, and disposal facilities.<sup>242</sup> The Resource Conservation and Recovery Act (RCRA) requires the EPA to compile such information twice a year into a Hazardous Waste Report (Biennial Report) to provide a basis for analysis of trends

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<sup>235</sup> *Envirofacts: PCS*, EPA.gov, <http://www.epa.gov/enviro/facts/pcs/index.html> (last visited Jan. 20, 2012).

<sup>236</sup> *Id.*

<sup>237</sup> *Information Collection Rule (ICR): Overview*, EPA.gov, <http://www.epa.gov/enviro/html/icr/index.html> (last visited Jan. 20, 2012).

<sup>238</sup> *Id.*

<sup>239</sup> See EPA, *Envirofacts: About the Data*, *supra* note 230.

<sup>240</sup> See *id.*

<sup>241</sup> *Envirofacts: AFS*, EPA.gov, <http://www.epa.gov/enviro/facts/afs/index.html> (last visited Jan. 20, 2012).

<sup>242</sup> See EPA, *Envirofacts: About the Data*, *supra* note 230.

regarding hazardous waste disposal.<sup>243</sup> Similarly, the EPA has created the Resource Conservation and Recovery Act Information (RCRAInfo) System to compile information on activities reported to state environmental agencies by hazardous waste generators, transporters, and facilities that treat, store, and dispose of hazardous waste.<sup>244</sup> RCRAInfo database information is also searchable within the Envirofacts database.<sup>245</sup>

Pursuant to its obligations under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the EPA has created the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database for the purpose of compiling information on Superfund sites around the country.<sup>246</sup> Envirofacts includes the CERCLIS database, allowing users to search for any combination of facility name and geographic location in order to retrieve Superfund data.<sup>247</sup>

#### 4. Land

In addition to the RCRIS and CERCLIS databases, other databases are included in Envirofacts that provide searchable information relating to activities that may affect land. The Assessment, Cleanup and Redevelopment Exchange System (ACRES) contains information on assessment, cleanup, and redevelopment activities at Superfund sites known as “brownfields” (primarily urban properties contaminated by CERCLA hazardous substances).<sup>248</sup> Similarly, Envirofacts contains an interactive tool known as Cleanups in My Community (CIMC) which allows users to map, list, and find cleanup progress profiles for facilities or properties contaminated by hazardous

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<sup>243</sup> *Envirofacts: BR*, EPA.gov, <http://www.epa.gov/enviro/facts/br/index.html> (last visited Jan. 20, 2012).

<sup>244</sup> *Envirofacts: RCRAInfo*, EPA.gov, <http://www.epa.gov/enviro/facts/rcrainfo/index.html> (last visited Jan. 20, 2012).

<sup>245</sup> See EPA, *Envirofacts: About the Data*, *supra* note 230.

<sup>246</sup> *Envirofacts: CERCLIS*, EPA.gov, <http://www.epa.gov/enviro/facts/cerclis/index.html> (last visited Jan. 20, 2012).

<sup>247</sup> *Id.*

<sup>248</sup> See EPA, *Envirofacts: About the Data*, *supra* note 230.

substances and that are being, or have been, cleaned up under CERCLA or RCRA programs.<sup>249</sup>

### 5. Toxics

The Envirofacts database integrates information from the EPA's publicly accessible computerized TRI database discussed above.<sup>250</sup>

### 6. Facilities Information

The Envirofacts database integrates information from the Facility Registry System (FRS), a database managed by the EPA to identify facilities, sites, and places subject to environmental regulations or which are otherwise of environmental interest.<sup>251</sup> Facilities information is also included from the EPA's Enforcement and Compliance History Online (ECHO) database.<sup>252</sup> The ECHO database relates to facilities regulated as Clean Air Act stationary sources of air pollutants, as permitted dischargers under the Clean Water Act, or which have permits or are otherwise regulated under the Resource Conservation and Recovery Act.<sup>253</sup> Four components of the enforcement process for these regulatory programs are documented in the ECHO database: (1) the occurrence of a monitoring event such as an inspection or a self-report; (2) the determination of a violation; (3) the occurrence of an enforcement action to address a violation; and (4) penalties associated with enforcement actions.<sup>254</sup>

### 7. Mapping Tools

The Envirofacts database includes search tools allowing users to select a specified geographic location and map a cross-section of environmental data pertaining to that location. All of the integrated environmental information regarding facilities or

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<sup>249</sup> *Id.*; *Cleanups in My Community*, EPA.gov, <http://iaspub.epa.gov/apex/cime/f?p=255:63:7501405407734203> (last visited Jan. 20, 2012).

<sup>250</sup> *See supra* notes 205-15 and accompanying text.

<sup>251</sup> *See* EPA, *Envirofacts: About the Data*, *supra* note 230.

<sup>252</sup> *Id.*

<sup>253</sup> *Id.*

<sup>254</sup> *Id.*

locations of environmental concern contained in the Envirofacts database can be accessed through the mapping features.<sup>255</sup> Two primary mapping tools—EnviroMapper for Envirofacts<sup>256</sup> and MyEnvironment<sup>257</sup>—are accessible through the Envirofacts database.<sup>258</sup>

Users can enter a geographic area (such as a street address, zip code, city, county, water body, national park name, etc.) into either of these mapping tools and generate a map image showing the different EPA regulated facilities or other environmental concerns present within that area.<sup>259</sup> Users may also use the mapping tools to conduct narrower searches targeting specific industries or regulatory programs (such as water, air, or land based).<sup>260</sup> For example, users can search by neighborhood and generate maps that show regulated facilities and present community environmental statistics on air quality (including daily ozone and particulate matter forecasts).<sup>261</sup> Another search can generate a map specific to cancer risk levels or water quality or any other factors that might affect the overall environmental quality and livability of a community.<sup>262</sup> A map generated to show facilities releasing toxic chemicals in a specific geographical location would allow users to zoom into a specific facility shown on the map to learn about statistics specific to that facility.<sup>263</sup> This might include such information as how much of those chemicals the facility can lawfully release, the facility's compliance record under applicable statutes, or any records of current violations.<sup>264</sup>

There are virtually unlimited options for conducting searches and generating information of interest for environmental justice purposes through use of the Envirofacts mapping tools. Indeed,

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<sup>255</sup> *Id.*

<sup>256</sup> *EnviroMapper for Envirofacts*, EPA.gov, <http://www.epa.gov/emefdata/em4ef.home> (last visited Jan. 20, 2012).

<sup>257</sup> *MyEnvironment*, EPA.gov, <http://www.epa.gov/myenvironment/> (last visited Jan. 20, 2012).

<sup>258</sup> See EPA, *Envirofacts: About the Data*, *supra* note 230.

<sup>259</sup> See *MyEnvironment: How to Use This Page*, EPA.gov, <http://www.epa.gov/myenvironment/howUsePage.html> (last visited Jan. 20, 2012).

<sup>260</sup> *See id.*

<sup>261</sup> *See id.*

<sup>262</sup> *See id.*

<sup>263</sup> *See id.*

<sup>264</sup> *See id.*

these tools appear to overlap considerably with the informational databases and various applications offered by the EPA's publicly accessible environmental justice mapping tool, EJView. The EPA's efforts to develop such GIS tools are particularly useful for public and private sector efforts to identify and address environmental justice concerns. As observed by Bernard Weintraub, "[m]any potent claims of environmental injustice revolve around the distribution of the benefits and burdens of environmental policy."<sup>265</sup> Maps can be "powerful tools for visualizing and understanding the distribution of [environmental] benefits and burdens . . . borne by communities," and are thus an extremely valuable resource in identifying and addressing issues of environmental justice.<sup>266</sup>

#### CONCLUSION

As the above discussion demonstrates, the EPA places considerable importance on information in the pursuit of the agency's environmental justice strategies. Since the foundation laid by Executive Order 12,898 in 1994, the EPA has expended considerable effort and resources to develop and improve information systems and tools to pursue strategic environmental justice goals, as well as environmental protection goals generally. This includes the development and utilization of information and informational tools for the EPA's own administrative and regulatory purposes, such as the agency's ambitious effort to develop the EJSEAT. This also includes the EPA's vigorous promotion of public access to information to further environmental justice and other environmental protection objectives through development of numerous online information databases and systems as well as mapping and GIS tools. The recent release of *Plan EJ 2014* impressively demonstrates an even further expansion of the EPA's commitment to development of information tools and strategies related to achieving the agency's environmental justice objectives.

These efforts have substantial value and the EPA has made admirable progress towards attaining the informational objectives

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<sup>265</sup> Weintraub, *supra* note 9, at 291.

<sup>266</sup> *Id.*

set forth in its strategic plans. Considerable additional progress will be required, however, before those informational objectives, as well as the related environmental justice goals of the agency, can be realized. As the NEJAC report assessing the EJSEAT rightly reflects, harnessing information for purposes of identifying and addressing environmental justice concerns is an extraordinarily difficult undertaking. In this regard, the NEJAC's report urged the EPA to develop more and better information and databases in order to improve the ability of the screening tool to assist in identification of environmental justice areas of concern.<sup>267</sup> At the time of release of the NEJAC report, the EPA had previously acknowledged that the EJSEAT "will remain a work-in-progress" until concerns raised by the NEJAC, including such development of new information sources and databases, are addressed.<sup>268</sup> In the recent release of *Plan EJ 2014*, the EPA reiterated that much work remains to be accomplished in the continuing development of informational tools such as the EJSEAT, including the ongoing and related effort to develop the plan's nationally consistent environmental justice screening tool.<sup>269</sup>

Environmental justice is an essentially forty-year-old movement and has been in a state of constant and rapid development over the past decades. From its grassroots origins in the early 1980s, the environmental justice movement has evolved into an amalgamation of "civil rights protest methods, legal principles and doctrines, and environmental protection theories, techniques, and approaches."<sup>270</sup> However, the movement's efforts over the past decades to utilize existing legal principles and doctrines to directly address environmental justice harms and impacts through litigation strategies have been criticized as largely unsuccessful.<sup>271</sup> For environmental justice communities

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<sup>267</sup> See NEJAC, Environmental Justice Screening Approaches, *supra* note 150, at 18-20.

<sup>268</sup> *Id.* at 18 ("During discussions with EPA Headquarters and the Regions, all parties concurred that EJSEAT will remain a work-in-progress as new databases are developed, features of the tool are evaluated in the field, and new opportunities emerge to improve its accuracy and usefulness.").

<sup>269</sup> See *supra* notes 174-78 and accompanying text.

<sup>270</sup> Hill, *supra* note 1, at 2.

<sup>271</sup> See Michael B. Gerrard, *Preface to the Second Edition*, in *The Law of Environmental Justice: Theories and Procedures to Address Disproportionate Risks* xxxv, xxxv (Michael B. Gerrard & Sheila R. Foster eds., 2d ed. 2008) (noting that recent

experiencing a disproportionate burden of the risks and impacts of lawful pollution activities, lawsuits “must meet procedurally arduous legal requirements that, as it turns out, seldom prevail.”<sup>272</sup> Moreover, litigation strategies have been argued to be not only ineffective in this regard, but also inefficient and potentially counterproductive to actually achieving environmental justice objectives.<sup>273</sup>

Legislative strategies have been similarly ineffectual. A number of states have enacted environmental justice legislation, but such measures reflect a “wide-range and variety of policy strategies and approaches” and only a relative few create concrete remedial strategies.<sup>274</sup> As it has with many areas in environmental law, Congress could rectify this with legislation incorporating a comprehensive national approach to environmental justice. Disappointingly, however, and despite a number of attempts since 1990, no federal environmental justice legislation has been enacted.<sup>275</sup>

As Michael Gerrard has observed, however, notwithstanding severe limitations on the ability of achieving redress of perceived environmental injustices through court action, “environmental justice continues to be of great importance in the political, policy, and administrative spheres.”<sup>276</sup> The EPA’s renewed emphasis on and prioritization of environmental justice over the last two years, especially through the comprehensive strategy reflected in *Plan EJ 2014*, compellingly validates that viewpoint. The lack of effective, consistent, and comprehensive judicial or legislative

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cases and existing doctrine have “severely limited the ability of plaintiffs to utilize the courts to take action against perceived environmental injustices”); Nick Christiansen, *Environmental Justice: Deciphering the Maze of a Private Right of Action*, 81 Miss. L. J. 843, 891 (2012); Monsma, *supra* note 5, at 446, 496 (“Attempts to craft justiciable claims for communities that incur a disproportionate share of the burden of lawfully regulated pollution have not proven successful as legal remedies, although the effort has led to a substantial body of legal scholarship.”).

<sup>272</sup> Monsma, *supra* note 5, at 445.

<sup>273</sup> See Hill, *supra* note 1, at 228-29 (“The environmental justice movement . . . argues that the struggles within the movement are primarily political and economic and that legal remedies may be inappropriate, or even nonexistent.”).

<sup>274</sup> *Id.* at 127, 159; Monsma, *supra* note 5, at 447.

<sup>275</sup> Hill, *supra* note 1, at 127; Monsma, *supra* note 5, at 446-47. For a discussion of some of the environmental justice related legislative proposals introduced in Congress, see Christiansen, *supra* note 271, at 847 n.15, 856-69.

<sup>276</sup> Gerrard, *supra* note 271, at xxxv.

avenues for addressing environmental justice impacts highlights the critical need for the EPA to continue pursuit of environmental justice goals through administrative and regulatory avenues. As an indispensable foundation of the agency's strategic environmental justice goals, the EPA's continuing efforts to develop and improve information systems and tools in furtherance of those goals is of vital importance.

