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# Climate Change Regulatory Authority beyond the Clean Air Act

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## Abstract

While the U.S. Environmental Protection Agency (EPA) is in the process of regulating greenhouse gas (GHG) emissions under its Clean Air Act (CAA) authority, Congress has considered several different bills that would preempt CAA regulation of GHGs and replace it with a comprehensive national climate policy. Policymakers should be aware that there are other existing federal statutes granting GHG regulatory authority, and new legislation would likely preempt them as well. This paper surveys these other statutes in order to highlight existing federal authority that might be given up with the passage of a new comprehensive bill. It explores the possibility of direct regulation of GHGs under the Clean Water Act (CWA), along with federal authority to block projects that contribute to climate change under the National Environmental Policy Act (NEPA) and conservation statutes such as the Endangered Species Act (ESA). Newer statutes like the Energy Independence and Security Act (EISA) mandate narrower regulation, but they are also considered here.

**Key Words:** Clean Air Act, GHGs, emissions, climate change, regulatory authority

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# Climate Change Regulatory Authority beyond the Clean Air Act

Peter Anderson, with Nathan Richardson\*

## Introduction

The Supreme Court ruling in *Massachusetts v. EPA* (2007) paved the way for federal regulation of greenhouse gases (GHGs) under the Clean Air Act (CAA), and the U.S. Environmental Protection Agency (EPA) has begun to use its CAA authority to regulate GHG emissions. However, many have argued that the CAA is not well-suited to the task.<sup>1</sup> An alternative is cap-and-trade legislation limiting GHG emissions, but the 111th Congress's attempts at climate legislation failed in 2010. Not only would the Waxman-Markey bill and parallel Senate legislation have established comprehensive new authority for regulation of GHGs using a cap-and-trade system, the bills also would have preempted existing CAA authority over GHGs.<sup>2</sup> Though current prospects appear dim, Congress may move to pass climate-related legislation again in the future, perhaps with a renewed push for cap and trade, or through alternative approaches like a carbon tax or a clean energy standard. Such proposals would likely—but not necessarily—preempt CAA authority for GHG regulation as well.

But the CAA is not the only existing statute that might grant federal regulatory authority based on climate change. Because new legislation might also preempt these other statutes' regulatory authority, policymakers should be aware of what would be given up. This paper considers existing federal statutes other than the CAA that grant—or arguably might grant—authority for federal agencies to regulate based on the threat of climate change. Its purpose is not to create a preemption “hit list” or suggest whether any given statute should or should not be preempted. Instead, the goal is to give both sides of any preemption debate basic information regarding what is at stake. This discussion is necessarily a survey and cannot describe any one statute in depth.

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<sup>1</sup> Jonathan H. Adler, Heat Expands All Things: The Proliferation of Greenhouse Gas Regulation under the Obama Administration, 34 HARV. J.L. & PUB. POL'Y 421, 434-39 (2011).

<sup>2</sup> 111th Congress Climate Change Legislation, CENTER FOR CLIMATE & ENERGY SOLUTIONS, <http://www.c2es.org/federal/congress/111> (last visited June 2, 2012).

Section I explores statutes that grant or may grant federal agencies broad powers to regulate government and private actions, the effects of which may contribute to or mitigate climate change. This section is divided into subsections for statutes dealing with water pollution and statutes dealing with the conservation of species. Section II summarizes federal statutes that mandate the analysis of climate effects prior to federal action or the gathering and reporting of information related to climate change. Section III examines statutes with energy conservation aims linked to GHG emissions, and Section IV alerts the reader to other considerations that do not directly involve statutory authority for climate-based regulation. Section V concludes.

## **I. Statutes Potentially Granting Broad Regulatory Power**

### ***Water Pollution Statutes***

#### **Clean Water Act**

Clean Water Act (CWA) authority could be triggered via a variety of effects that climate change may have on water resources, most notably ocean acidification due to increased atmospheric GHG concentrations. The goal of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters” by eliminating the discharge of pollutants into navigable waters.<sup>3</sup> The Administrator of EPA is charged with administering the CWA, but states retain primary responsibility for eliminating water pollution, as well as the authority to allocate water quantities.<sup>4</sup> The CWA’s central prohibition is that no person may discharge a pollutant into navigable waters without first obtaining a permit from the relevant federal or state authority.<sup>5</sup> When the federal technology-based standards required by CWA § 301(b) are insufficient to protect a body of water, it is considered impaired, and CWA § 303(d) requires states to submit lists of impaired bodies and establish a total maximum daily load (TMDL) limitation for pollutants such that concentration levels of that pollutant do not exceed established water quality criteria.<sup>6</sup>

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<sup>3</sup> CWA § 101(a), 33 U.S.C. § 1251(a).

<sup>4</sup> CWA § 101(b), (d), (g), 33 U.S.C. § 1251(b), (d), (g).

<sup>5</sup> CWA § 301(a), 33 U.S.C. § 1311(a).

<sup>6</sup> CWA § 303(d), 33 U.S.C. § 1313(d).

Because the CWA includes chemical wastes and biological materials in its definition of *pollutant*,<sup>7</sup> it may authorize regulation of climate change due to ocean acidification, a phenomenon linked to increased carbon dioxide in the atmosphere.<sup>8</sup> Ocean acidification is caused by ocean absorption of atmospheric carbon dioxide.<sup>9</sup> According to EPA, all 23 coastal states and five territories have established criteria for ocean pH, and EPA currently recommends that they each submit lists of ocean waters failing to meet these pH criteria.<sup>10</sup>

Under CWA § 303(d), EPA has authority to approve or deny TMDL limitations submitted by state agencies for each pollutant.<sup>11</sup> Although there is some precedent for direct regulation of atmospheric pollution of water through the TMDL program—namely for mercury<sup>12</sup>—applying the CWA to directly regulate atmospheric sources of water pollution is problematic, for both practical and jurisdictional reasons.<sup>13</sup>

Instead, EPA could use its authority under CWA § 301 to issue more stringent marine pH water quality criteria.<sup>14</sup> EPA could then use its § 402 permitting authority for actual water discharges (as opposed to atmospheric deposition) to set stricter water quality requirements for permit applicants.<sup>15</sup> The rationale is that permit applicants whose discharges will directly enter waters concurrently suffering from temperature or acidification stresses caused by climate change bear the burden of mitigating the total impact.<sup>16</sup>

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<sup>7</sup> CWA § 502(6), 33 U.S.C. § 1362(6).

<sup>8</sup> Adler, *supra* note 1, at 441; U.S. ENVTL. PROTECTION AGENCY, Memorandum: Integrated Reporting and Listing Decisions Related to Ocean Acidification, at 1, Nov. 15, 2010, available at: [http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/oa\\_memo\\_nov2010.pdf](http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/upload/oa_memo_nov2010.pdf).

<sup>9</sup> U.S. ENVTL. PROTECTION AGENCY, *supra* note 8, at 1.

<sup>10</sup> U.S. ENVTL. PROTECTION AGENCY, *supra* note 8, at 4.

<sup>11</sup> CWA § 303(d), 33 U.S.C. § 1313(d).

<sup>12</sup> Conn. Dep't of Env'tl. Protection et al., Northeast Regional Mercury Total Maximum Daily Load, U.S. ENVTL. PROTECTION AGENCY (Oct. 24, 2007), <http://www.epa.gov/region1/eco/tmdl/pdfs/ne/Northeast-Regional-Mercury-TMDL.pdf>.

<sup>13</sup> Robin Kundis Craig, Climate Change Comes to the Clean Water Act: Now What?, 1 WASH. & LEE J. ENERGY, CLIMATE, & ENV'T 9, 45-47 (2010). The “Clean Water Act, again, regulates discharges of pollutants into water, not air emissions . . . water quality issues are often local, and usually no greater than regional, in scope, while the greenhouse gas emissions that contribute to climate change impacts are global.” *Id.* at 45.

<sup>14</sup> *Id.* at 30.

<sup>15</sup> *Id.* at 30-31.

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

In 2007, the Center for Biological Diversity (CBD) petitioned EPA and several states to list coastal waters as impaired due to changing ocean pH.<sup>17</sup> In response, EPA determined that states should include waters affected by ocean acidification in the lists they maintain under CWA § 303(d) whenever sufficient data are available.<sup>18</sup>

Separately, in June 2011, CBD threatened to sue EPA for failure to publish water quality criteria related to black carbon pollution on glaciers and sea ice under CWA § 304.<sup>19</sup> According to CBD, black carbon directly and indirectly contributes to the recession of glaciers and sea ice,<sup>20</sup> and EPA has a duty to develop water quality criteria and publish information related to black carbon under CWA § 304.<sup>21</sup> CBD also argues that airborne pollutants that affect water quality are subject to CWA regulation, again because EPA has regulated airborne mercury under the CWA in the past.<sup>22</sup>

In the case of both carbon dioxide emissions that cause ocean acidification and airborne black carbon particles that settle on glaciers, any federal regulation would take the form of § 303 TMDL standards because these are forms of “nonpoint source pollution”—that is, they are not direct discharges into water from a “point source” like a pipe, which are regulated under the § 402 permit system.<sup>23</sup> It has been argued that theoretically, individual states or EPA could use the TMDL system to limit daily emissions of GHGs by various emitters.<sup>24</sup> However, states may regulate emitters only within their borders, and tracing the effect on local water quality to local GHG emitters, as opposed to national or global emitters, may prove futile.<sup>25</sup> On the other hand, EPA could develop national TMDL standards and enforce them by issuing compliance orders,

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<sup>17</sup> Michael B. Gerrard and J. Cullen Howe, *Climate Change Litigation in the U.S.*, CLIMATE CASE CHART, <http://www.climatecasechart.com> (last visited June 4, 2012).

<sup>18</sup> U.S. ENVTL. PROTECTION AGENCY, *supra* note 8, at 4.

<sup>19</sup> Letter from Matthew Vespa, Senior Att’y, Ctr. for Biological Diversity, to Lisa Jackson, Adm’r, U.S. Env’tl. Protection Agency (June 22, 2011), available at: [http://biologicaldiversity.org/programs/climate\\_law\\_institute/pdfs/BlackCarbonCWAPetition\\_non-response\\_6-22-2011.pdf](http://biologicaldiversity.org/programs/climate_law_institute/pdfs/BlackCarbonCWAPetition_non-response_6-22-2011.pdf).

<sup>20</sup> *Id.* at 3.

<sup>21</sup> *Id.* at 14.

<sup>22</sup> *Id.* at 13.

<sup>23</sup> *See* Craig, *supra* note 13, at 45-47.

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

<sup>25</sup> *Id.* at 45-46.

filing civil suits, or seeking criminal penalties under CWA § 309.<sup>26</sup> Even so, federal regulation of GHG emissions under the CWA could face a similar enforcement problem—separating international from U.S. emitters. It may also inspire federalism concerns, since Congress intended the TMDL program to be administered primarily by the states.<sup>27</sup>

### Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) has regulatory implications for one proposed method of managing GHG emissions, carbon capture and underground sequestration.<sup>28</sup> Carbon capture and sequestration—diverting CO<sub>2</sub> emissions from power plants or other industrial sources to underground rock formations for permanent storage—are viewed as an important tool for reducing emissions of CO<sub>2</sub> into the atmosphere.<sup>29</sup> The SDWA governs underground injections, and EPA has promulgated rules governing the site selection, construction, and monitoring of geologic carbon sequestration facilities under its SDWA authority.<sup>30</sup>

The purpose of the SDWA is to protect the quality of all sources of drinking water, above and below ground,<sup>31</sup> and the EPA has specifically designated a new class of wells for geologic sequestration, accompanied by extensive requirements governing their operation under the SDWA Underground Injection Control (UIC) Program.<sup>32</sup> The concern here is that once costs associated with UIC compliance are determined, it is possible that SDWA regulation of underground injections would have the unintended consequence of limiting or deterring carbon capture and sequestration; however, empirical study is needed.

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<sup>26</sup> See CWA § 309(a)-(c), 33 U.S.C. § 1319(a)-(c).

<sup>27</sup> See Craig, *supra* note 13, at 46.

<sup>28</sup> Jonathan B. Weiner, Radiative Forcing: Climate Policy to Break the Logjam in Environmental Law, 17 N.Y.U. ENVTL L.J. 210, 227-28 (2008).

<sup>29</sup> Carbon Dioxide Capture and Sequestration, U.S. ENVTL. PROTECTION AGENCY, <http://www.epa.gov/climatechange/ccs/index.html> (last updated June 8, 2012).

<sup>30</sup> Geologic Sequestration of Carbon Dioxide, U.S. ENVTL. PROTECTION AGENCY, [http://water.epa.gov/type/groundwater/uic/wells\\_sequestration.cfm](http://water.epa.gov/type/groundwater/uic/wells_sequestration.cfm) (last updated Mar. 6, 2012).

<sup>31</sup> Summary of the Safe Drinking Water Act, U.S. ENVTL. PROTECTION AGENCY, <http://www.epa.gov/lawsregs/laws/sdwa.html> (last updated Feb. 4, 2012).

<sup>32</sup> U.S. ENVTL. PROTECTION AGENCY, *supra* note 29.

## ***Species Conservation Statutes***

### **Endangered Species Act**

The broadest federal authorities for regulating GHG emissions (other than the CAA) may be the conservation statutes. Primarily, the Endangered Species Act (ESA) could be used to block private or public actions that increase GHG emissions if climate change is found to threaten listed species. Section 7(a)(2) of the ESA requires federal agencies to ensure that their actions do not jeopardize the continued existence of a species listed as endangered or threatened, and it requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) before acting if their actions might affect listed species or critical habitats.<sup>33</sup> In addition, ESA § 9(a) prohibits private actions that “take” a listed species.<sup>34</sup> *Taking* means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such activity.”<sup>35</sup> USFWS may prohibit private acts that significantly modify or degrade a listed species’ habit because such activities are included in EPA’s broad definition of *harm*.<sup>36</sup> USFWS may also grant permits for private actions that incidentally take a species—that is, the purpose of the action is not to harm the species—under ESA § 10(a)(1).<sup>37</sup>

In 2008 USFWS listed the polar bear as a threatened species.<sup>38</sup> It also designated 187,000 square miles of critical habitat for polar bears.<sup>39</sup> Proposed federal actions that could contribute to the melting of Arctic sea ice (the polar bear’s critical habitat), including actions that contribute to climate change, could arguably be prohibited under the ESA,<sup>40</sup> though USFWS’s 2008 rule

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<sup>33</sup> ESA § 7(a), 16 U.S.C. § 1536(a).

<sup>34</sup> ESA § 9(a)(1), 16 U.S.C. § 1538(a)(1).

<sup>35</sup> ESA § 3(19), 16 U.S.C. § 1532(19).

<sup>36</sup> *Babbitt v. Sweet Home Chapter of Communities for a Greater Oregon*, 515 U.S. 687 (1995).

<sup>37</sup> ESA § 10(a)(1), 16 U.S.C. § 1539(a)(1).

<sup>38</sup> Determination of Threatened Status for the Polar Bear (*Ursus maritimus*) Throughout Its Range, 73 Fed. Reg. 28,212 (May 15, 2008) (to be codified at 50 C.F.R. pt. 17).

<sup>39</sup> Adler, *supra* note 1, at 443.

<sup>40</sup> *Id.*; Weiner, *supra* note 28, at 220.

specifically stated that there was no causal link established between GHG emissions and adverse effects on species or critical habitats at the time.<sup>41</sup>

However, the Natural Resources Defense Council has successfully argued that climate change science must be considered in USFWS's consultation process under ESA § 7.<sup>42</sup> In *NRDC v. Kempthorne*, a federal court held that the agency's review of federal and state government proposals for a water diversion project must weigh the effect of climate change on the habitat of a listed species of fish.<sup>43</sup>

This precedent shows that climatic effects on listed species' habitats must be considered in USFWS decisions to approve federal projects and decisions to approve incidental take permits for private actions. Moreover, the ESA's prohibition on federal actions that jeopardize the continued existence of a listed species is powerful, as shown in the seminal case *Tennessee Valley Authority v. Hill*.<sup>44</sup> In that case the Supreme Court enjoined further construction of a nearly completed multimillion-dollar dam project because evidence indicated that operation of the dam would destroy the critical habitat of a listed species of fish.<sup>45</sup> Therefore, if a causal link can be established between an act and degradation of a listed species' critical habitat—for

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<sup>41</sup> “Without the requirement of a causal connection between the action under consultation and effects to species, literally every agency action that contributes greenhouse gases to the atmosphere would arguably result in consultation with respect to every listed species or critical habitat that may be affected by climate change. . . . As we now understand them, the best scientific data currently available does not draw a causal connection between GHG emissions resulting from a specific Federal action and effects on listed species or critical habitat by climate change, nor are there sufficient data to establish the required causal connection to the level of reasonable certainty between an action's resulting emissions and effect on species or critical habitat.” Special Rule for the Polar Bear, 73 Fed. Reg. 28,313 (May 15, 2008)(to be codified at 50 C.F.R. pt. 17). This was an “interim final rule” that was finalized 60 days later, specifying the special protective mechanisms that apply to the polar bear as a threatened species. Special Rule for the Polar Bear, 73 Fed. Reg. 76,249 (Dec. 16, 2008). While the U.S. District Court for the District of Columbia vacated the Final Special Rule in October 2011 for procedural violations of NEPA, it upheld the USFWS's decision not to extend the prohibition on incidental takes of the polar bear stemming from activities occurring outside the polar bear's specified range. *In re Polar Bear Endangered Species Act Listing and § 4(d) Rule Litigation*, 818 F. Supp. 2d 214, 231 (D.D.C. 2011). In doing so, the court specifically agreed with the USFWS's reasoning that “because climate modeling does not currently allow the agency to draw a causal connection between the greenhouse gas emissions from a specific source and the impact on a particular polar bear . . . extending the full take prohibitions of the ESA to the polar bear would not effectively address the threat to the species from sea ice losses caused by global greenhouse gas emissions.” *Id.* The May 15, 2008 Interim Final Special Rule was reinstated until further notice. *Id.* at 239.

<sup>42</sup> *NRDC v. Kempthorne*, 506 F. Supp. 2d 322, 370 (E.D. Cal. 2007).

<sup>43</sup> *Id.*

<sup>44</sup> See *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 187-88 (1978).

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

example, a power plant whose emissions were shown to raise temperatures and melt sea ice in the polar bear's critical habitat—the act would be prohibited under the ESA. Because ESA §7's prohibition and consultation requirements apply not only to actions carried out by federal agencies but also to actions authorized and funded by federal agencies, an agency could not approve private construction of a power plant whose emissions were shown to cause degradation of a listed species' habitat.<sup>46</sup>

### **Marine Mammal Protection Act**

Similar to the ESA, the Marine Mammal Protection Act (MMPA) also prohibits citizens from “taking” any of the approximately 125 species of marine mammals.<sup>47</sup> Therefore, similar arguments could be used to prohibit activities that contribute to climate change in a way that proximately causes destruction of marine mammals' habitat, and climatic effects must be considered when federal agencies seek USFWS consultation.

In the case of the polar bear, environmental advocacy groups have cited the MMPA as a source of regulatory authority. In *Center for Biological Diversity v. Kempthorne*, advocacy groups challenged a USFWS decision that granted an exemption to oil and gas company explorations that might harass polar bears.<sup>48</sup> The MMPA authorizes so-called nonlethal incidental takes of a species if USFWS determines the activity will have a “negligible impact” on the affected species.<sup>49</sup> So far, the courts have upheld USFWS's authorization of nonlethal takes of the polar bear through oil and gas activities.<sup>50</sup>

### **Migratory Bird Treaty Act**

Like the ESA and MMPA, the Migratory Bird Treaty Act (MBTA) prohibits private takings of listed birds and grants authority to USFWS to grant incidental take permits to private

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<sup>46</sup> See ESA § 7(a)(2), 42 U.S.C. § 1536(a)(2). However, ESA § 7 does not apply to federal actions over which the agency has no discretion. *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 671 (2007) (holding that under the Clean Water Act, EPA did not have discretion to withhold permitting authority from a state, so EPA's transfer of permitting authority was not subject to ESA §7 consultation).

<sup>47</sup> MMPA § 102(a), 16 U.S.C. § 1372(a); Marine Mammal Protection Act (MMPA) of 1972, NOAA FISHERIES, <http://www.nmfs.noaa.gov/pr/laws/mmpa/> (last updated May 30, 2012).

<sup>48</sup> *Ctr. for Biological Diversity v. Kempthorne*, 588 F.3d 701 (9th Cir. 2009).

<sup>49</sup> *Id.* at 710.

<sup>50</sup> *Id.* at 705, 710.

persons.<sup>51</sup> Therefore, as with the ESA and MMPA, actions inducing climatic effects on listed birds' habitats are arguably prohibited takes under the MBTA. Federal courts are split on this issue, with the U.S. District Court for the Southern District of Indiana holding that habitat modification or destruction is not a taking within the MBTA.<sup>52</sup> However, the U.S. District Court for the District of Colorado specifically disagreed, interpreting the MBTA to support a broad understanding of *take* that could include habitat modification or destruction.<sup>53</sup> Under the latter interpretation, USFWS could prohibit actions that, for example, raise the temperature of waters that are part of a listed bird's habitat.

On the other hand, the MBTA may unintentionally hamper efforts to replace GHG-emitting energy production with wind energy generation because wind turbines inevitably injure or kill some protected birds. USFWS may use its permitting authority to prevent the construction of wind farms or, conversely, grant incidental take permits, allowing wind farm construction to continue.<sup>54</sup>

## II. Statutes Mandating Research, Analysis, and Information Disclosure

### ***National Environmental Policy Act***

Although the National Environmental Policy Act (NEPA) does not impose substantive requirements, it does compel federal agencies to consider the potential environmental effects of their actions—including, at least to some extent, climate change-related effects—and to consider alternatives to their proposed actions. Federal actions for NEPA purposes include not only federal projects but also many permit approvals and federal interactions with private decisions.

Environmental groups have successfully argued that federal agencies' Environmental Assessments (EAs) under NEPA must consider the effect of proposed federal actions on climate change.<sup>55</sup> The Ninth Circuit held in *Center for Biological Diversity v. National Highway Traffic*

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<sup>51</sup> Robert Johns, Leading Bird Conservation Group Formally Petitions Feds to Regulate Wind Industry, AMERICAN BIRD CONSERVANCY (Dec. 14, 2011), <http://www.abcbirds.org/newsandreports/releases/111214.html>.

<sup>52</sup> Mahler v. U.S. Forest Serv., 927 F. Supp. 1559, 1573 (S.D. Ind. 1996).

<sup>53</sup> United States v. Moon Lake Electric Ass'n, Inc., 45 F. Supp. 2d 1070, 1075-79 (D. Colo. 1999).

<sup>54</sup> Johns, *supra* note 51.

<sup>55</sup> Lauren E. Schmidt & Geoffrey M. Williamson, Recent Developments in Climate Change Law, 37 THE COLORADO LAWYER 63, 69 (2008) (citing *Center for Biological Diversity v. NHTSA*, 538 F.3d 1172 (9th Cir. 2008)).

*Safety Administration* that “[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct.”<sup>56</sup> In addition, the Council on Environmental Quality issued guidance documents to federal agencies outlining how they must evaluate climate change effects pursuant to NEPA.<sup>57</sup>

### ***FY2008 Consolidated Appropriations Act***

This legislation provides authority for the Mandatory Reporting of Greenhouse Gases Rule, issued by EPA in 2009.<sup>58</sup> Entities that emit 25,000 tons per year or more must report their GHG emissions to EPA.<sup>59</sup> Other emitters may also be subject to reporting requirements based on the particular industry.<sup>60</sup> The American Chemistry Council and other industry groups challenged the final rule as it was originally issued, but EPA settled the case with the petitioners in 2010.<sup>61</sup>

### ***Global Change Research Act of 1990***

The Global Change Research Act established a federal research program to improve understanding of climate change issues and required preparation and submission of a report every three years outlining trends in climate change.<sup>62</sup> “The stated purpose of the Global Change Research Act ‘is to provide for development and coordination of a comprehensive and integrated United States research program which will assist the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change.’”<sup>63</sup> In *Center for Biological Diversity v. Brennan*, environmental groups succeeded in securing a court order to compel the director of the U.S. Climate Change Science Program to issue an overdue Research Plan and Scientific Assessment.<sup>64</sup>

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<sup>56</sup> *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1217 (9th Cir. 2008).

<sup>57</sup> Adler, *supra* note 1, at 442-443.

<sup>58</sup> Adler, *supra* note 1, at 440-41. *See also* Greenhouse Gas Reporting Program, U.S. ENVTL. PROTECTION AGENCY, <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html> (last updated May 24, 2012).

<sup>59</sup> *Id.*

<sup>60</sup> *Id.*

<sup>61</sup> Proposed Settlement Agreements, Clean Air Act Citizen Suit, 75 Fed. Reg. 42,085 (July 20, 2010), available at: <http://www.gpo.gov/fdsys/pkg/FR-2010-07-20/pdf/2010-17700.pdf>.

<sup>62</sup> *Center for Biological Diversity v. Brennan*, 571 F. Supp. 2d 1105, 1112 (N.C. Cal. 2007).

<sup>63</sup> *Id.* (citing 15 U.S.C. § 2931(b)).

<sup>64</sup> *Id.* at 1135.

### ***American Recovery and Reinvestment Act***

This act allocated “about \$570 million in climate science research spending. In addition, there are about \$21 billion in energy-related tax incentives such as extending the renewable energy production tax credit and an additional \$1.6 billion in Clean Renewable Energy Bonds.”<sup>65</sup>

### ***Freedom of Information Act***

Although no groups have asserted federal climate regulation authority on the basis of the Freedom of Information Act (FOIA), parties have litigated over FOIA requests regarding federal government building projects that may contribute to climate change.<sup>66</sup>

## **III. Fuel Efficiency Statutes**

### ***Energy Policy Act (2005) and Energy Independence and Security Act (2007)***

These two statutes grant authority to regulate the composition of liquid fuels sold in the United States, based in part on their life-cycle GHG emissions. The Energy Policy Act of 2005 created the Renewable Fuels Standard, which initially required that 2.78 % of the transportation fuel sold in the United States come from renewable sources.<sup>67</sup> This standard was raised in 2007 under the Energy Independence and Security Act (EISA), setting a target of about 7% renewable fuel use by 2022.<sup>68</sup> EPA has the authority under EISA to issue rules regarding the Renewable Fuels Standard.<sup>69</sup> The EISA also raised the corporate average fuel economy (CAFE) standards for the first time since 1975, and it contains “provisions to expand carbon capture and sequestration programs.”<sup>70</sup>

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<sup>65</sup> Summary of the American Recovery and Reinvestment Act (ARRA), CENTER FOR CLIMATE & ENERGY SOLUTIONS, <http://www.c2es.org/federal/analysis/ARRA> (last visited June 4, 2012).

<sup>66</sup> Gerrard & Howe, *supra* note 17. For example, *NRDC v. Wright-Patterson Air Force Base* (S.D.N.Y. 2011) (environmental group seeking documents related to proposed construction of a new coal-burning power plant), and *Judicial Watch, Inc. v. U.S. Dept. of Energy* (D.D.C. 2010) (request for documents related to Carol Browner’s role in U.S. climate policy).

<sup>67</sup> Renewable Fuel Standard, CENTER FOR CLIMATE & ENERGY SOLUTIONS, <http://www.c2es.org/federal/executive/renewable-fuel-standard> (last visited June 4, 2012).

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

<sup>69</sup> *Id.*; Transportation and Climate: Regulations and Standards, U.S. ENVTL. PROTECTION AGENCY, <http://epa.gov/otaq/climate/regulations.htm> (last updated Mar. 21, 2012).

<sup>70</sup> Schmidt & Williamson, *supra* note 55, at 65.

The EISA revised the Renewable Fuels Standard and “required EPA to apply lifecycle greenhouse gas performance threshold standards to ensure that each category of renewable fuel emits fewer greenhouse gases than the petroleum fuel it replaces.”<sup>71</sup> Following a presidential memorandum requesting that EPA and the National Highway Traffic Safety Administration (NHTSA) establish a national program to reduce GHG emissions from motor vehicles and improve fuel efficiency,<sup>72</sup> the agencies have issued a joint rule promulgating GHG emissions standards for light-duty vehicles under EPA’s CAA authority and NHTSA’s EISA authority.<sup>73</sup>

Industry groups challenged earlier EPA rules under EISA, arguing that the new rules go too far.<sup>74</sup> By contrast, environmental groups challenged the CAFE standards issued by NHTSA in 2009 for not being stringent enough.<sup>75</sup>

## IV. Other Considerations

### *Executive Orders*

Notably, in 2009 President Obama issued an order requiring all federal agencies to reduce their GHG emissions, lower their fuel use, and improve their energy efficiency.<sup>76</sup> Presidential memoranda have also been cited as authority—though not necessarily *binding* authority—for the EPA and NHTSA joint national program for GHG and fuel economy standards.<sup>77</sup>

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<sup>71</sup> Renewable Fuel Standard (RFS), U.S. ENVTL. PROTECTION AGENCY, <http://epa.gov/otaq/fuels/renewablefuels/index.htm> (last updated Mar. 26, 2012).

<sup>72</sup> U.S. ENVTL. PROTECTION AGENCY, EPA AND NHTSA, IN COORDINATION WITH CALIFORNIA, ANNOUNCE PLANS TO PROPOSE GREENHOUSE GAS AND FUEL ECONOMY STANDARDS FOR PASSENGER CARS AND LIGHT TRUCKS 3 (2011), available at: <http://epa.gov/otaq/climate/420f11027.pdf>. “The President specifically requested that the agencies develop ‘... a coordinated national program under the CAA [Clean Air Act] and the EISA [Energy Independence and Security Act of 2007] to improve fuel efficiency and to reduce greenhouse gas emissions of passenger cars and light-duty trucks of model years 2017-2025.’” *Id.*

<sup>73</sup> Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed. Reg. 25,324 (May 7, 2010), available at: <http://www.gpo.gov/fdsys/pkg/FR-2010-05-07/pdf/2010-8159.pdf>.

<sup>74</sup> Nat’l Petrochemical & Refiners Ass’n v. EPA, 630 F.3d 145 (D.C. Cir. 2010).

<sup>75</sup> Kassie Siegel & Deborah Sivas, *Lawsuit Challenges Obama Fuel Economy Standards*, CTR. FOR BIOLOGICAL DIVERSITY, Apr. 2, 2009, available at: [http://www.biologicaldiversity.org/news/press\\_releases/2009/cale-standards-04-02-2009.html](http://www.biologicaldiversity.org/news/press_releases/2009/cale-standards-04-02-2009.html).

<sup>76</sup> Adler, *supra* note 1, at 442.

<sup>77</sup> See U.S. ENVTL. PROTECTION AGENCY, *supra* note 72, at 3.

### ***Resource Conservation and Recovery Act***

While not directly related to climate change, EPA is considering using its authority under the Resource Conservation and Recovery Act (RCRA) to regulate the disposal of coal ash produced by coal-burning power plants.<sup>78</sup> A major cost-imposing regulation like this may affect the coal-burning power market, though EPA regulates the actual emissions from coal-fired power plants under the CAA. Authority over coal ash under RCRA stems from EPA's designation that it is a solid waste under RCRA,<sup>79</sup> not from any climate link. EPA may regulate both hazardous and nonhazardous solid wastes under RCRA, and it has proposed rules for regulating coal ash disposal under both schemes.<sup>80</sup>

### **V. Conclusion**

Several statutes other than the CAA could grant regulatory authority based solely or primarily on climate change and related risks. Most of these grants of authority are relatively small, and none approach the breadth of CAA authority. But not all are insignificant.

The Clean Water Act might authorize the regulation of GHG emissions as nonpoint source pollutants. Where individual states fail to publish TMDL standards for those pollutants, EPA may set and enforce those standards. The Endangered Species Act, the Marine Mammal Protection Act, and the Migratory Bird Treaty Act—while not authorizing proactive regulation of GHG emissions—authorize the federal government to prohibit federal and private projects that degrade the habitats of protected species. If scientific data show a causal link between a climate change-inducing action and degradation of protected habitat, one or more of these statutes would ban that action. Moreover, the National Environmental Policy Act mandates that these types of potential effects be analyzed and reported before the federal government takes any major action.

Because any comprehensive climate change legislation Congress might pass in the future is likely to preempt these existing sources of regulatory authority, it is important to recognize what authority currently exists before it is gone. Certainly any CAA or CWA regulation of GHG

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<sup>78</sup> EPA Climate and Energy Action, CENTER FOR CLIMATE & ENERGY SOLUTIONS, <http://www.c2es.org/federal/executive/epa> (last visited June 4, 2012).

<sup>79</sup> See RCRA § 1004(27), 42 U.S.C. § 6903(27); see also 40 C.F.R. § 261.2(a).

<sup>80</sup> Coal Combustion Residuals, U.S. ENVTL. PROTECTION AGENCY, <http://www.epa.gov/wastes/nonhaz/industrial/special/fossil/ccr-rule/> (last updated June 13, 2012).

emissions would likely disappear as a result of comprehensive new legislation, along with GHG performance standards for renewable fuels promulgated under the Energy Policy Act and Energy Independence and Security Act. Prohibitions under conservation statutes such as the Endangered Species Act would also likely be preempted.

This is not to say that these statutes would be rendered moot in their entirety—only that their potential authority for regulating based on climate change would be superseded. After all, these statutes were written for other important environmental purposes, and they do not expressly reference climate change or GHG regulation. Even so, policymakers should consider the usefulness of the climate regulation tools they already possess before preempting them.