



Climate Change Litigation: A Survey

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Summary

The scientific, economic, and political questions surrounding climate change have long been with us. This report focuses instead on a relative newcomer: the legal debate. Though the first court decision related to climate change appeared 19 years ago, such litigation has proliferated in just the past six. Representatives of some suing organizations and states acknowledge that a prime cause for this litigation surge was inaction by Congress and the executive branch during the George W. Bush Administration with regard to mandatory constraints on greenhouse gas (GHG) emissions.

The court cases, decided and pending, arise in eight contexts. The first is the Clean Air Act (CAA). In *Massachusetts v. EPA*, the Supreme Court held that as to mobile sources of emissions (cars, trucks), EPA has authority under the act to regulate greenhouse gas (GHG) emissions. This decision puts pressure on EPA to move forward as well with regulation of GHGs from stationary sources (power plants, factories).

Second, litigation under wildlife statutes, particularly the Endangered Species Act, raises the possibility that the impacts of climate change on wildlife may constrain private activities that emit GHGs.

Third, energy statutes have been invoked. It has been held, for example, that under the Energy Policy and Conservation Act, the United States must monetize the benefits of reduced carbon emissions as part of setting light-truck fuel economy standards.

Fourth, various statutes requiring federal government analysis and information dissemination—the National Environmental Policy Act (NEPA), Global Change Research Act, and Freedom of Information Act—have generated climate-change litigation. NEPA suits make up the most numerous subset of this category. Courts agree that if a plaintiff can establish standing, NEPA can be used to compel agency consideration of the climate change effects of its actions.

Fifth, common law tort theories such as nuisance have been invoked, not yet successfully, to force cutbacks in GHG emissions, or payment of damages. Several cases are on appeal.

Sixth are the preemption suits. These challenge state regulation of GHG emissions from motor vehicles as preempted by the federal corporate average fuel economy standards or federal authority over foreign policy. The two rulings thus far have rejected these challenges, but are on appeal. California's suit attacking EPA's denial of its request for a waiver of federal preemption under the Clean Air Act has now been stayed, pending EPA reconsideration of the denial.

Seventh, chiefly with respect to coal-fired power plants, are suits under state utilities laws.

And eighth, one case asks whether existing general liability insurance policies cover climate-change-related liability.

Finally, the report discusses international law aspects of a nation's contributions to climate change, and offers some overview comments.

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Introduction

The scientific, economic, and political questions surrounding climate change have long been with us. This report focuses instead on a relative newcomer: the legal debate. Though the first court decision related to climate change appeared 19 years ago, the quantity of such litigation has mushroomed in recent years. One observer counts 118 lawsuits and petitions for government action filed on climate change issues through the end of 2008—41 lawsuits filed in 2007 alone.¹ Representatives of some suing organizations and states acknowledge that a prime cause for this litigation surge was inaction by Congress and the executive branch during the George W. Bush Administration with regard to mandatory constraints on greenhouse gas (GHG) emissions, and their perception that litigation might help to prompt such action.

The principal court cases, decided and pending, arise in eight contexts—a number that continues to grow. First and most important is the Clean Air Act (CAA). In April, 2007, the Supreme Court held in *Massachusetts v. EPA* that EPA has authority under the CAA to regulate greenhouse gas emissions from new motor vehicles.²

The second context for climate change litigation is the federal wildlife statutes, raising the issue of whether statutes like the Endangered Species Act can be used to limit GHG emissions based on their contribution to climate-change-related alterations of wildlife habitat. Third is the federal energy statutes, such as the Energy Policy and Conservation Act and Outer Continental Shelf Lands Act, which also raise questions as to whether climate change impacts must be considered in their spheres. The fourth context for litigation is federal information statutes such as the National Environmental Policy Act, exploring the extent to which they can be used to compel government analysis of and dissemination of information about climate change. Fifth is common law tort theories such as nuisance and whether they be used successfully by state and private plaintiffs to force cutbacks in GHG emissions, or payment of damages? Sixth is federal preemption of state regulation of GHG emissions. This category breaks down into efforts by states and environmentalists to reverse EPA's refusal to waive Clean Air Act preemption, and auto industry efforts to impose preemption under non-Clean Air Act theories, such as the "CAFE standards" under the Energy Policy and Conservation Act. Seventh, chiefly with respect to coal-fired power plants, is state utilities laws. And eighth is whether general liability insurance policies cover harms and liabilities caused by climate change.

Sections I through VIII of this report address these eight areas of litigation in turn.³ Most known cases, decided and pending, are mentioned—omitted cases are those that raise climate change issues in only the most marginal way or only implicitly,⁴ and some state cases. Looking beyond the domestic lawsuits, Section IX surveys international law arguments that might be used to induce GHG emission reductions from the United States and other countries that are major GHG emitters, and the few international law claims filed against the United States to date. Finally, Section X offers overall comments.

¹ Robert Cook, Obama Said to Be "Off to Fast Start" With Economic Stimulus Legislation, BNA Daily Env't Rept. (March 18, 2009).

² 549 U.S. 497 (2007).

³ Similar ground is covered by Justin R. Pidot, *Global Warming in the Courts: An Overview of Current Litigation and Common Legal Issues* (Georgetown Environmental Law and Policy Institute 2006) (available, together with a March, 2007 update, at <http://www.law.georgetown.edu/gelpi/>), and Todd O. Madden and Eric McLaughlin, *Climate Change Litigation: Trends and Developments*, BNA Daily Env't Rpt. B-1 (April 3, 2007). A regularly updated chart of climate (continued...)

I. Clean Air Act

Stationary Sources of GHG Emissions

The First EPA General Counsel Memorandum

Aware that prospects for Senate approval of the Kyoto Protocol were dubious,⁵ some Members of Congress became concerned in the late 1990s that the Clinton Administration EPA might seek to regulate GHG emissions in the absence of approval, under either of two claimed authorities. One authority would derive from an argument that even prior to ratification, the Protocol provided some sort of legal basis for emissions restrictions, perhaps citing past treaties signed by the United States that were provisionally implemented prior to going into effect.⁶ This possibility provoked a series of enactments barring EPA's use of appropriated funds to implement the Kyoto Protocol in the absence of approval and ratification.⁷

The rest of this section deals with the second claim of possible authority: regulating GHG emissions independently of the Protocol, under the CAA. This authority has now been confirmed by the Supreme Court, at least as to mobile sources; nonetheless, this report retains from earlier versions the historical evolution of the issue.

In 1998, an EPA General Counsel memorandum⁸ concluded that CO₂ satisfies the CAA definition of "air pollutant," but that this conclusion is only the first step. Before EPA can regulate CO₂

(...continued)

change cases, prepared by Michael Gerrard, Director, Center for Climate Change Law, Columbia University, is available at <http://www.climatecasechart.com>. A useful blog is the Constitutional Accountability Center's Warming Law: Changing the Climate in the Courts, found at <http://theconstitution.org/blog/warming/>. Broader treatments of the legal implications of climate change may be found in Michael Gerrard (ed.), *GLOBAL CLIMATE CHANGE AND U.S. LAW* (ABA 2007), and at least three law-review symposium issues: *Responses to Global Warming: The Law, Economics, and Science of Climate Change*, 155 U. Pa. L. Rev. 1353 (2007); *Changing Climates: Adapting Law and Policy to a Transforming World*, 55 UCLA L. Rev. 1479 (2008); and *Federalism and Climate Change: The Role of the States in a Future Federal Regime*, 50 Ariz. L. Rev. 673 (2008).

⁴ An example of a case that deals with climate change only implicitly (at least so far) is *State of New York v. U.S. Dep't of Energy*, No. 08-0311 (2d Cir. filed January 17, 2008), in which three states (NY, CN, MA) challenge the Department's energy conservation standards for residential furnaces and boilers. Though we are given to understand that the climate change benefits of reducing fossil fuel consumption by such furnaces and boilers was a consideration in filing suit, the petition for review does not mention CO₂ or climate change, and thus we do not include this case in the body of the report.

⁵ Kyoto Protocol to the United Nations Framework Convention on Climate Change, concluded December 10, 1997, U.N. Doc. FCC/CP/1997/L.7 Add. 1, reprinted at 37 I.L.M. 22 (1998). One indication of Senate antipathy to the Kyoto Protocol was its adoption by 95-0 of the so-called Byrd-Hagel resolution urging the President not to sign any international agreement on climate change that would result in serious injury to the U.S. economy or that did not include provisions regarding the GHG emissions of developing countries. S.Res. 98, 105th Congress (1997).

⁶ See generally CRS Report 98-349, *Global Climate Change: Selected Legal Questions About the Kyoto Protocol*, by David M. Ackerman. This report concluded that "there does not appear to be any clear legal authority that could be invoked to sustain the provisional application of the Kyoto Protocol." *Id.* at 6.

⁷ P.L. 105-276, 112 Stat. at 2496 (1998) (barring EPA's use of FY1999 funds to implement Protocol); P.L. 106-74, 113 Stat. at 1080 (1999) (same for FY2000); P.L. 106-377, 114 Stat. at 1141A-41 (2000) (same for FY2001).

⁸ Memorandum from Jonathan Z. Cannon, EPA General Counsel, to Carol M. Browner, EPA Administrator, EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources (April 10, 1998).

emissions, the memorandum went on, it must further conclude that CO₂ meets criteria in other CAA provisions requiring the agency to determine that the substance poses harm to public health, welfare, or the environment. This next step EPA declined to take. At a House hearing in 1999,⁹ a panel of legal experts argued the question of EPA's authority to regulate CO₂ under the CAA. A new EPA General Counsel endorsed his predecessor's analysis in the 1998 memorandum, but just as his predecessor, stressed that the EPA's legal analysis was "largely theoretical" since "EPA currently has no plans to regulate carbon dioxide...."¹⁰ This hands-off position was prompted in part by strong congressional opposition based on uncertainties as to the economic impact of regulating a pollutant as widespread as CO₂. In addition, some in Congress argued that CAA implementation of a CO₂ standard was barred by the aforementioned enactments (appropriation riders) prohibiting implementation of the Kyoto Protocol.¹¹

The EPA General Counsel opinion that "air pollutant" includes GHGs held sway until 2003, when that office reversed itself in the context of a petition asking the agency to regulate GHG emissions from mobile sources. This story picks up below ("Mobile Sources of GHG Emissions").

Suits Seeking General CAA Rulemaking by EPA

The earliest lawsuit in this category, now dismissed, sought to have EPA promulgate national ambient air quality standards for CO₂. In *Massachusetts v. Whitman*, filed in 2003, three Northeast states (MA, CT, ME) sought to force EPA to list CO₂ as a "criteria pollutant" under the CAA.¹² They argued that on various occasions, EPA had indicated its belief that CO₂ emissions contribute to climate change. These EPA statements constituted, in the words of CAA section 108,¹³ a "judgment [that GHG emissions] cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare" and "result[] from numerous or diverse mobile or stationary sources." These prerequisites being satisfied, the suit argued, section 108 requires EPA to add CO₂ to its list of "criteria pollutants," then proceed under section 109¹⁴ to develop national ambient air quality standards for CO₂. On September 3, 2003, a few days after EPA's denial of a petition asking the agency to regulate GHG emissions from motor vehicles, the plaintiff states voluntarily dismissed this suit, reportedly so as to transfer their energies to a suit challenging the petition denial (leading to the Supreme Court's *Massachusetts v. EPA* decision).

The remaining suits in this category are all active today. Each one seeks EPA regulation of GHG emissions through new source performance standards (NSPSs) under the CAA.¹⁵ In most of these cases, regulation of GHGs is not the primary issue. Nonetheless, it should be noted that they will be litigated in the shadow of the Supreme Court ruling in *Massachusetts v. EPA* holding that EPA has authority under the CAA to regulate GHGs from mobile sources. The burning question is how that ruling will affect EPA regulation of *stationary-source* GHG emissions.

⁹ *Is CO₂ A Pollutant and Does EPA Have the Power to Regulate It?*, Joint Hearing Before the Subcomm. on National Environmental Growth, Natural Resources and Regulatory Affairs of the House Comm. on Gov't Reform and the Subcomm. on Energy and Environment of the House Comm. on Science, 106th Cong. (1999).

¹⁰ Testimony of Gary Guzy, Joint Hearing, *supra* note 9, at 11.

¹¹ See Veronique Bugnion and David M. Reiner, *A Game of Climate Chicken: Can EPA Regulate Greenhouse Gases Before the U.S. Senate Ratifies the Kyoto Protocol?*, 30 *Env'tl. L.* 491 (2000).

¹² Civ. Action No. 3:03CV984 (PCD) (D. Conn.) (filed June 4, 2003).

¹³ 42 U.S.C. § 7408.

¹⁴ 42 U.S.C. § 7409.

¹⁵ See CAA § 111, 42 U.S.C. § 7411.

The first NSPS suit was *New York v. EPA*, an effort to compel EPA to issue a NSPS for CO₂ from steam generating units. *New York* began with an EPA proposal to revise its NSPSs for electric utility and other steam-generating units. Some commenters on the proposed rule argued that EPA must, in addition to the revisions proposed, set NSPSs for GHGs emitted from steam generating units. The commenters pointed to CAA section 111's command that EPA promulgate NSPSs to address emissions from new stationary sources that "cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." In promulgating its final rule in February, 2006,¹⁶ however, EPA rejected this demand, saying (it being pre-*Massachusetts v. EPA*) that the agency lacked authority to set NSPSs for GHGs. Review of the final rule was sought in the D.C. Circuit.¹⁷ In 2006, the court severed the portion of the case dealing with regulation of GHGs, titling it *New York v. EPA*.¹⁸ In 2007, a few months after the Supreme Court decision in *Massachusetts v. EPA*, this severed case was remanded to EPA for further proceedings in light of that decision (this section *infra*).

Two other NSPS suits concern oil and natural gas—the production side in one suit; the refining side in the other. As to production, plaintiffs in *WildEarth Guardians v. Johnson*, No. 1:09 CV 00089 (D.D.C. filed January 14, 2009), invoke the CAA citizen suit provision to force EPA performance of alleged nondiscretionary duties under both the NSPS and National Emission Standards for Hazardous Air Pollutants provisions of the act.¹⁹ The complaint notes CO₂, and particularly methane, as GHG pollutants of concern. Since neither of these pollutants is listed as a hazardous air pollutant, it may be surmised that the sole portion of the lawsuit pertinent to climate change is the NSPS claim. That claim alleges EPA's failure to review and revise the NSPS for the Crude Oil and Natural Gas Production category since 1985, despite the CAA requirement that NSPSs be reviewed, and if appropriate revised, every eight years.²⁰

As for oil and gas refining, New York and 11 other states (CA, CT, DE, ME, MA, NH, NM, OR, RI, VT, and WA) filed a petition for review in 2008 challenging EPA's revisions that year of its existing NSPS for petroleum refineries.²¹ Petitioners' argument in *New York v. EPA*, No. 08-1279 (D.C. Cir. filed August 25, 2008), is that EPA acted arbitrarily and capriciously in failing to determine whether GHGs from petroleum refineries endanger public health and welfare and by failing to promulgate NSPSs for GHG emissions in the refinery rule. Petitioners cite CAA section 111(b)'s requirement that EPA make an endangerment determination, establish NSPS for a source category that contributes significantly to such endangerment, and revise the NSPS at least every eight years. This lawsuit has been consolidated with several others, including *Environmental Integrity Project v. EPA* (No. 08-1281), and is now styled *American Petroleum Institute v. EPA*

¹⁶ 71 Fed. Reg. 9,866 (February 27, 2006).

¹⁷ *Coke Oven Environmental Task Force v. EPA*, No. 06-1131 (D.C. Cir. filed April 7, 2006).

¹⁸ No. 06-1322.

¹⁹ NESHAPS are governed by CAA section 112, 42 U.S.C. § 7412.

²⁰ CAA § 111(b)(1)(B); 42 U.S.C. § 7411(b)(1)(B).

²¹ 73 Fed. Reg. 35,838 (June 24, 2008), codified at 40 C.F.R. Part 60, Subpart Ja. The agency's response to commenters wanting EPA to promulgate an NSPS for GHGs as part of its rule revisions is at 35858-35860. The agency's response is interesting because owing to the Supreme Court decision in *Massachusetts v. EPA* the previous year, EPA could no longer argue that the term "air pollutant" in section 111 does not reach GHGs. One argument used by EPA is that the eight-year reviews of NSPSs required by CAA section 111(b)(1)(B) do not mandate promulgation of NSPSs for pollutants not already covered by the NSPS under review. EPA conceded that it had promulgated NSPSs for previously uncovered pollutants in the past, but argued that this was discretionary. It is better, the agency asserted, to address GHG emissions through the process begun by its Advance Notice of Proposed Rulemaking.

(No. 08-1277). On December 15, 2008, the D.C. Circuit granted a motion to hold the case in abeyance while EPA considers various petitions for administrative reconsideration of the rule.²²

The most recent NSPS suit, *Environmental Integrity Project v. U.S. EPA*, No. 1:09-CV 00218 (D.D.C. filed February 4, 2009), seeks to compel EPA to perform its nondiscretionary duty to review, and if necessary revise, its NSPS for nitric acid plants, including for nitrous oxide (N₂O), a powerful GHG. The standard, plaintiffs allege, has not been reviewed since 1984, notwithstanding the CAA requirement that NSPSs be reviewed and if appropriate revised every eight years.²³

Suits and Administrative Petitions Enforcing the CAA Against Specific Stationary Sources

Rather than seeking general rulemaking as above, these legal efforts seek to impose CO₂ emission limits on specific manufacturing, power, and heating plants.

In *Northwest Environmental Defense Center v. Owens Corning Corp.*, environmental groups invoke the CAA citizen suit provision to enforce the act's "new source review" requirement as to GHG emissions.²⁴ They contend that Owens Corning is constructing a manufacturing plant in Oregon with the potential to emit more than 250 tons per year of harmful gases, without having obtained the required CAA permit.²⁵ The principal such gas is HCFC-142b, which plaintiffs contend is a potent GHG. In a preliminary ruling, the court held that plaintiffs have standing, notwithstanding that the climate change impacts of the plant's GHG emissions would be "indirect." Anticipating the Supreme Court's rationale for granting standing in *Massachusetts v. EPA*, the court found that standing was not precluded by the fact that the injury to plaintiffs would be shared with many others, nor because the relief sought would not lead to a *complete* elimination of climate change impacts.

At least three proceedings have involved Sierra Club appeals to EPA's Environmental Appeals Board of recently issued "new source review" permits in Prevention of Significant Deterioration (PSD) areas.²⁶ In each case, the issue has been whether a permit issued for construction of a new "major emitting facility" or major modification in a PSD area must require the use of "best available control technology" (BACT) for CO₂ emissions from that source.²⁷ In two places, the CAA requires such new facilities or major modifications to install BACT for "each pollutant

²² See CAA § 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B) (when EPA Administrator may convene proceeding for reconsideration of rule). One petition, from the Environmental Integrity Project, Sierra Club, and the Natural Resources Defense Council, cites as its first objection EPA's refusal to issue NSPSs for GHGs (CO₂ and methane) from refineries.

²³ *Id.*

²⁴ 434 F. Supp. 2d 957 (D. Or. 2006).

²⁵ CAA § 165, 42 U.S.C. § 7475.

²⁶ PSD areas are areas that are either attaining the National Ambient Air Quality Standard for the pollutant in question or are unclassifiable for that pollutant. CAA § 161, 42 U.S.C. § 7471. The PSD portion of the CAA, 42 U.S.C. §§ 7470-7492, sets limits on the degree to which ambient concentrations of a pollutant will be allowed to rise toward the cap set by the National Ambient Air Quality Standard for that pollutant.

²⁷ "Major emitting facility" is defined at CAA section 169(1), 42 U.S.C. § 7479(1). "Best available control technology" is defined at CAA section 169(3), 42 U.S.C. § 7479(3).

subject to regulation under this Act.”²⁸ As indicated below, Sierra Club has used two arguments in support of its position that GHGs are “pollutant[s]subject to regulation” by the statute.

In the first proceeding, *In re Christian County Generation, LLC*, PSD Appeal No. 07-01, 13 E.A.D. ____ (January 28, 2008), Sierra Club objected to the issuance of a PSD permit by a state agency for construction of a coal-fired electric power plant. The Board denied the petition because Sierra Club had not raised its argument during the public comment period on the draft permit. Sierra Club argued that the comment period closed before the Supreme Court decision in *Massachusetts v. EPA* holding that GHGs are “air pollutants” under the CAA, but the EAB found that the arguments in that case were reasonably ascertainable at the time of the public comment period.

The second and most publicized case, *In re Deseret Power Electric Cooperative*, PSD Appeal No. 07-03, 14 E.A.D. ____ (November 13, 2008), involved a PSD permit issued by EPA Region 8 to allow the construction of a new waste-coal-fired utility generating unit at an existing power plant located near Bonanza, Utah. The Board rejected Sierra Club’s contention that “subject to regulation” has a plain meaning compelling Region 8 to impose a CO₂ BACT limit in the PSD permit. Sierra Club had pointed to EPA’s 1993 amendment of its regulations requiring monitoring and reporting of CO₂ emissions,²⁹ as directed by section 821 of the 1990 CAA Amendments. At the same time, the Board rejected the Region’s argument that it was limited by an historical agency interpretation to read “subject to regulation” as meaning “subject to a statutory or regulatory provision that requires actual control of emissions of that pollutant.” Since EPA has yet to issue a CAA regulation requiring actual control of CO₂ emissions, Region 8 argued, BACT for CO₂ is not required. Hence, the Board remanded the permit to the Region for it to reconsider whether to impose a CO₂ BACT limit. The Board recognized, however, that given the significance of the issue, it would be best if the Agency, rather than one of its regional offices, defined “subject to regulation under this Act.”

This the EPA Administrator did a month later. In a memorandum issued December 18, 2008, he declared EPA’s “definitive interpretation” of its regulation defining which pollutants trigger new source review in PSD areas.³⁰ Reprising Region 8’s argument in *Deseret Power*, the Administrator said that this regulation “exclude[s] pollutants for which EPA regulations only require monitoring or reporting but ... include[s] each pollutant subject to either a provision in the Clean Air Act or regulation adopted by EPA under the Clean Air Act that requires actual control of emissions of that pollutant.” To reiterate, this position excludes CO₂ until EPA promulgates a regulation covering CO₂ emissions. Sierra Club petitioned for review of the memorandum, which was granted by the newly arrived Obama Administration on February 17, 2009.

In the third EAB appeal, *In re Northern Michigan University (Ripley Heating Plant)*, PSD Appeal No. 08-02, 14 E.A.D. ____ (February 18, 2009), Sierra Club challenges a permit issued by the Michigan Department of Environmental Quality to the university, allowing it to construct a new circulating fluidized bed boiler at the heating plant.³¹ Sierra Club’s argument was the same as in *Deseret*, and the Board ruled identically—that is, it directed the Michigan agency, guided by

²⁸ CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4); CAA § 169(3), 42 U.S.C. § 7479(3).

²⁹ 40 C.F.R. Part 75.

³⁰ 40 C.F.R. § 52.21(b)(50) (defining “Regulated NSR pollutant”).

³¹ The boiler would have functioned as a cogeneration unit providing both electrical power and heat to the university by burning wood, coal, and natural gas.

Deseret, to consider whether “pollutant subject to regulation” requires application of a BACT limit to CO₂ emissions. The Board’s decision makes no mention of the Administrator’s December, 2008 memo or EPA’s grant of review thereof in 2009.

Mobile Sources of GHG Emissions

The Section 202 Petition Denial and the Second EPA General Counsel Memorandum

In 1999, 19 organizations petitioned EPA to regulate emissions of GHGs (CO₂, methane, nitrous oxide, and hydrofluorocarbons) from new motor vehicles. The rulemaking petition cited the agency’s alleged mandatory duty to do so under CAA section 202(a)(1).³² That section directs the EPA Administrator to prescribe emission standards for “any air pollutant” from new motor vehicles “which, in his judgment cause[s], or contribute[s] to air pollution which may reasonably be anticipated to endanger public health or welfare.”

In 2003, EPA denied the section 202 petition.³³ Much of the agency’s rationale followed a new General Counsel memorandum, issued the same day.³⁴ Contrary to its Clinton Administration precursor, this new OGC memorandum concluded that the CAA does *not* grant EPA authority to regulate CO₂ and other GHG emissions for their climate change impacts.

Massachusetts v. EPA: The Challenge to EPA’s Petition Denial

EPA’s denial of the section 202 petition prompted a suit in the D.C. Circuit by twelve states (CA, CT, IL, MA, ME, NJ, NM, NY, OR, RI, VT, WA) and others. Opposing the challenge, besides EPA, were ten state intervenors (AK, ID, KS, MI, ND, NE, OH, SD, TX, UT), plus several automobile- and truck-related trade groups. In 2005, a split panel in *Massachusetts v. EPA* rejected the suit,³⁵ and the Supreme Court granted certiorari.

In *Massachusetts v. EPA*, the Supreme Court ruled 5-4 for petitioners on all three issues in the case.³⁶ First, Massachusetts, the majority held, had standing to bring the claim. Second, EPA has authority to regulate motor vehicle GHGs under section 202, since “air pollutant” includes GHG emissions. And third, the phrase “in his judgment” in section 202 does not allow EPA to exercise discretion against regulating based on policy considerations. The ruling in favor of petitioners was forecast early in the majority opinion by its opening sentences: “A well-documented rise in global temperatures has coincided with a significant increase in the concentration of carbon

³² 42 U.S.C. § 7521(a)(1).

³³ EPA, Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922 (September 8, 2003). EPA’s ruling followed a suit by the original petitioners alleging unreasonable delay. *Center for Technology Assessment v. Whitman*, No. 02-CV-2376 (D.D.C. filed December 5, 2002).

³⁴ Memorandum from Robert E. Fabricant, EPA General Counsel, to Marianne L. Horinko, EPA Acting Administrator, EPA’s Authority to Impose Mandatory Controls to Address Global Climate Change Under the Clean Air Act (August 28, 2003).

³⁵ 415 F.3d 50 (D.C. Cir. 2005).

³⁶ 549 U.S. 497 (2007).

dioxide in the atmosphere. Respected scientists believe the two trends are related.”³⁷ (Nor did the dissenters dispute this.)

Most of the decision is devoted to the first issue, standing. The Court found that petitioners had two factors in their favor. First, the CAA specifically authorizes challenges to agency action unlawfully withheld, such as here.³⁸ A litigant to whom Congress has accorded such a procedural right, said the Court, “can assert that right without meeting all the normal standards for redressability and immediacy”³⁹—two prerequisites of the standing test. Second, the Court found it “of considerable relevance”⁴⁰ that the petitioner injury on which it focused—Massachusetts’s loss of shore land from global-warming-induced sea level rise—was that of a sovereign state. States are “not normal litigants for the purposes of invoking federal jurisdiction,”⁴¹ said the Court, noting their quasi-sovereign duty to preserve their territory.

Having described petitioners’ favored position in establishing standing, it was surprising that the Court then undertook a traditional standing analysis. As to the first prong of the standing test—whether plaintiff has demonstrated actual or imminent “injury in fact” of a concrete and particularized nature—the Court homed in on Massachusetts’s status as *owner* of much of the shore land being lost to sea level rise. That this injury may be widely shared with other coastal states does not disqualify this injury, said the Court; it is nonetheless concrete.

The second prong of the standing test is causation, requiring that the injury of which the plaintiff complains is fairly traceable to the defendant. EPA did not dispute the existence of a causal relationship between GHG emissions and climate change. It did argue, however, that any reduction in GHG emissions achieved through the current litigation would be too small a portion of worldwide GHG emissions to make a cognizable difference in climate change. In a ruling that may be of benefit to environmental plaintiffs in many contexts, the Court held that even an agency’s refusal to take a “small incremental step”⁴² that would result in only a modest reduction in worldwide GHG emissions, is enough for standing purposes.

The third and final prong of the standing test is redressability, demanding that the remedy sought by the plaintiff is one that is likely to redress his/her injury. Here, the remedy sought was EPA regulation of GHG emissions from new motor vehicles. The Court found that this remedy satisfied redressability because while it would not by itself reverse climate change, it would nonetheless slow or reduce such change. Nor, given the “enormity”⁴³ of the potential effects of climate change, was it relevant to the Court that the full effectiveness of the remedy would be delayed until existing cars and trucks on the road were largely replaced by new ones.

In contrast with the Court’s lengthy discourse on standing, its handling of the CAA issues in the case is quite brief. On the authority question, the Court said that the CAA’s broad definition of “air pollutant” simply cannot be squared with EPA’s view that GHGs are not included. The Court rejected EPA’s argument that federal laws enacted following enactment of this definition—laws

³⁷ *Id.* at 504-505.

³⁸ CAA § 307(b)(1), 42 U.S.C. § 7607(b)(1).

³⁹ 549 U.S. at 517-18.

⁴⁰ *Id.* at 518.

⁴¹ *Id.*

⁴² *Id.* at 524.

⁴³ *Id.* at 525.

emphasizing interagency collaboration and research—suggest that Congress meant to curtail EPA’s power to use mandatory regulations in addressing air pollutants. Nor was the Court impressed with EPA’s argument that “air pollutant” in the CAA could not include vehicle GHG emissions because EPA standards for such emissions could be satisfied only by improving fuel economy, a goal assigned to the Department of Transportation under a different statute (the Energy Policy and Conservation Act⁴⁴).

Finally, on the discretion issue, the majority concluded that “in his judgment” refers only to whether an air pollutant “may reasonably be anticipated to endanger public health or welfare.” Thus, said the Court, EPA can avoid taking further action in response to the section 202 petition “only if it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion.” It rejected EPA’s stated policy reasons for refusing to regulate GHG emissions, such as its claim that voluntary executive branch programs already provide an effective response to climate change and that unilateral EPA regulation of vehicle GHG emissions could weaken U.S. efforts to persuade developing countries to reduce the GHG intensity of their economies. Such reasons “have nothing to do with whether greenhouse gas emissions contribute to climate change.”⁴⁵ In short, said the Court, the only question is whether sufficient information exists to make an endangerment finding under section 202.

Accordingly, the Supreme Court reversed the D.C. Circuit opinion and remanded the case to that court for further proceedings.⁴⁶ On September 14, 2007, the D.C. Circuit vacated EPA’s denial of the section 202 petition and remanded the matter to the agency. (Further developments are described in the following “Aftermath” section.)

A four-justice dissent by Chief Justice Roberts in *Massachusetts v. EPA* disputed the majority’s holding of standing. A dissent by Justice Scalia for the same four justices argued that agency policy preferences may appropriately be considered as part of EPA’s decision *whether* to issue a “judgment,” conceding that the judgment, *if made*, must be limited to whether vehicle GHG emissions cause endangerment. Justice Scalia also disputed the majority’s holding that “air pollutant” in section 202 includes GHGs.

Aftermath of Supreme Court Decision

The Court’s decision left EPA with three options: make a finding that motor vehicle GHG emissions may “endanger public health or welfare” and issue emissions standards; make a finding that such emissions do not satisfy that prerequisite; or decide that climate change science is so uncertain as to preclude making a finding either way (or cite some other “reasonable explanation” why it will not exercise its discretion either way).⁴⁷ As to the state of climate change science, the Court’s focus on the policy reasons EPA gave as part of exercising its “judgment” obscures the fact that the agency’s rejection of the petition stemmed in part from expressions of scientific

⁴⁴ 49 U.S.C. § 32902.

⁴⁵ 549 U.S. at 501.

⁴⁶ Three weeks after the decision in *Massachusetts v. EPA*, the Senate held a hearing devoted exclusively to it: *The Implications of the Supreme Court’s Decision Regarding EPA’s Authorities with Respect to Greenhouse Gases Under the Clean Air Act*, Hearing Before the Senate Comm. on Env’t and Pub. Works (April 24, 2007) (hereinafter Senate hearing).

⁴⁷ Justice Scalia’s dissent characterizes EPA’s three options similarly: 127 S. Ct. at 1472.

uncertainty in a 2001 National Research Council report on the science of climate change. Whether scientific reports since the petition rejection in 2003 have foreclosed the scientific-uncertainty rationale is beyond the scope of this report.⁴⁸

The EPA Administrator did say after the decision that although it bars EPA use of policy considerations as a basis for *denying* the petition, it left open whether the agency can invoke them when actually *writing* the regulations, should the agency make an endangerment finding.⁴⁹ CAA section 202 does not impose any stringency or other criteria on GHG emission standards promulgated under the section. Given the wide latitude EPA has in setting section 202 standards for GHGs, the possibility exists that EPA, following an endangerment finding, could set voluntary standards, or standards pegged to the CAFE standards for fuel economy, or standards that must be complied with only after the President certifies that developing nations have put adequate GHG emission limits into effect.

In May, 2007, President Bush asked EPA to have CAA regulations limiting vehicle GHG emissions in place by the end of 2008 and to use the President's 2007 State of the Union proposal for raising the CAFE standards as a guide.⁵⁰ As late as early December, 2007, EPA was consistently stating that it intended to issue proposed regulations by the end of 2007. However, the enactment of the Energy Independence and Security Act in December, 2007,⁵¹ with its increase in CAFE standards, led EPA to back off from any firm deadline for issuance of mobile-source GHG emission standards. In early 2008, EPA proposed instead to issue an advance notice of proposed rulemaking (ANPR) addressing the full range of *Massachusetts v. EPA*'s ramifications throughout the CAA, not just on section 202 standards. In response, the *Massachusetts v. EPA* petitioners in April, 2008 requested the D.C. Circuit to order EPA to comply with the Supreme Court's remand and the Circuit's mandate within 60 days (by choosing one of the three options noted earlier). The court denied the request in June, 2008.⁵² The following month, EPA issued a lengthy ANPR that, it said, "reflects the complexity and magnitude of the question of whether and how greenhouse gases could be effectively controlled under the Clean Air Act"⁵³—extending well beyond the narrow section 202 endangerment issue in the case. It warned that regulating GHGs under any provision of the CAA "could result in an unprecedented expansion of EPA authority that would have a profound effect on virtually every sector of the economy..."⁵⁴ Under the Obama Administration, EPA is moving toward the first option listed by the Supreme Court—an "endangerment finding"—by mid-April, 2009, followed by a 60-day comment period before the proposed finding is finalized.

⁴⁸ See CRS Report RL34266, *Climate Change: Science Highlights*, by Jane A. Leggett.

⁴⁹ *Senate hearing, supra* note 46 (prepared statement of EPA Administrator Stephen Johnson). The EPA Administrator was apparently referring to the Court's statement that "We need not and do not reach the question ... whether policy concerns can inform EPA's actions in the event that it makes [an endangerment finding]." 549 U.S. at 534-535.

⁵⁰ *Briefing by Conference Call on the President's Announcement on CAFE and Alternative Fuel Standards*, May 14, 2007 (statement of EPA Administrator Stephen Johnson), available at whitehouse.gov/news/releases/2007. See also Exec. Order No. 13432, *Cooperation Among Agencies in Protecting the Environment with Respect to Greenhouse Gas Emissions from Motor Vehicles, Nonroad Vehicles, and Nonroad Engines*, 72 Fed. Reg. 27,717 (May 16, 2007).

⁵¹ P.L. 110-140.

⁵² *Massachusetts v. EPA*, No. 03-1361 (D.C. Cir. June 26, 2008). The court provided no explanation of its decision, except for an opinion by Judge Tatel concurring in part and dissenting in part. Judge Tatel agreed with the other two judges that no writ of mandamus was yet justified. Still, he would have held the petitioners' motion in abeyance and required periodic updates from the agency because its postponement was indefinite.

⁵³ 73 Fed. Reg. 44,354, 44,355 (July 30, 2008).

⁵⁴ *Id.*

As the ANPR asserts, the Court's ruling in *Massachusetts v. EPA* has many implications beyond its four corners.

On the substantive (non-standing) side, the Court's ruling upholding CAA coverage of GHG emissions from mobile sources improves the prospects of litigation seeking to have EPA restrict GHG emissions from stationary sources as well. The stationary-source provisions of the CAA use terms similar to that of section 202—in particular, “air pollutant,” “in his judgment,” and “endanger.”⁵⁵ As the earlier subsection on suits seeking general CAA rulemaking indicated, such an effort to compel EPA regulation of stationary source GHGs is already underway as to NSPSs. Further, if EPA sets a national ambient air quality standard for CO₂, GHGs would be covered under the CAA's new source review permitting program for major emitting facilities and modifications in Prevention of Significant Deterioration areas.⁵⁶ Presumably, best available control technology for CO₂ emissions would then have to be installed on such facilities.⁵⁷

On the mobile-source side, *Massachusetts v. EPA* is expressly relied upon in at least seven additional rulemaking petitions seeking EPA regulation of GHGs from mobile sources. As described in the ANPR, the petitions seek rulemaking under CAA sections 202(a)(3), 211, 213, and 231 to limit GHG emissions from (1) fuels and a wide array of mobile sources including ocean-going vessels, (2) all other types of nonroad engines and equipment, such as locomotives, construction equipment, farm tractors, forklifts, harbor crafts, and law and garden equipment, (3) aircraft, and (4) rebuilt heavy-duty highway engines.⁵⁸

Beyond the federal clean air program, the Supreme Court's decision will likely be pivotal to the fortunes of plaintiffs in other climate change litigation owing to its discussion of standing. The question will be the extent to which the Court's finding of standing was contingent, as it obliquely suggested, on the existence of a state-sovereign plaintiff⁵⁹ and the presence in the CAA of an explicit provision allowing the filing of administrative petitions.

Ironically, the “environmental win” in *Massachusetts v. EPA* has thwarted the environmental side in a climate-change-related nuisance case. One court used the decision as peripheral support for dismissing a nuisance action on “political question” grounds, reasoning that the Supreme Court has now found authority over GHG emissions to reside in the Federal Government.⁶⁰ In the future, the decision may also undermine federal common law claims, on the argument that Congress intended to leave no room for courts to develop overlapping federal common law restricting GHG emissions.

⁵⁵ See, e.g., CAA § 108(a)(1)-(2), 42 U.S.C. § 7408(a)(1)-(2) (requiring the EPA Administrator to maintain a list of each “air pollutant, emissions of which, in his judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare,” and then issue air quality criteria and national ambient air quality standards for that air pollutant).

⁵⁶ CAA § 165, 42 U.S.C. § 7475.

⁵⁷ CAA § 165(a)(4), 42 U.S.C. § 7475(a)(4).

⁵⁸ 73 Fed. Reg. at 44,399.

⁵⁹ See Sara Zdeb, *From Georgia v. Tennessee Copper to Massachusetts v. EPA: Parens Patriae Standing for State Global-Warming Plaintiffs*, 96 Geo. L. J. 1059 (2008).

⁶⁰ *California v. General Motors Corp.*, 2007 Westlaw 2726871 (N.D. Cal. September 17, 2007). This case is discussed in Section V.

II. Wildlife Statutes

Marine Mammal Protection Act

The Marine Mammal Protection Act (MMPA)⁶¹ bars the taking of marine mammals, with exceptions. One exception is for “incidental takings” by specified activities.⁶² It provides that persons “engage[d] in a specified activity (other than commercial fishing) within a specified geographical region” may request the Secretary of the Interior or Commerce to authorize, for up to five years, the incidental, but not intentional, taking of small numbers of marine mammals. The Secretary must grant the authorization if he/she makes certain findings—including that the effect of the incidental take will be “negligible”—and promulgates rules setting out permissible methods of taking by the specified activity.

In *Center for Biological Diversity v. Kempthorne*, No. 3:07-CV-0141 (D. Alaska April 22, 2008), transferred from No. 07-CV-00894 (N.D. Cal. filed February 13, 2007), environmental groups challenge one such “incidental taking” rule -- authorizing the incidental take of polar bears and Pacific walrus for five years (2006-2011) resulting from oil and gas activities in the Beaufort Sea and adjacent coastal areas of the Alaska north slope.⁶³ Plaintiffs argue that the rule violates the MMPA by permitting more than a “negligible” impact on the species, based on the combined impact of oil-and-gas activities and the weakened condition of polar bears due to climate change.⁶⁴ The district court dismissed the suit, holding that the determination by the Fish and Wildlife Service (FWS) of negligible impact was reasonably based on the administrative record. An appeal has been filed. (This lawsuit also contains a National Environmental Policy Act claim, discussed in Section IV.)

Endangered Species Act

Under the Endangered Species Act (ESA),⁶⁵ animals (and plants) may be listed as endangered or threatened. Particularly relevant to climate change litigation are ESA sections 9 and 7.⁶⁶

⁶¹ 16 U.S.C. §§ 1361-1421h.

⁶² 16 U.S.C. § 1371(a)(5). In the MMPA, “take” means “to harass, hunt, capture, or kill” any marine mammal, or attempt to do so. 16 U.S.C. § 1362(13).

⁶³ 71 Fed. Reg. 43,926 (August 2, 2006).

⁶⁴ In a case of the same name, *Center for Biological Diversity v. Kempthorne*, No. 07-5109 (N.D. Cal. filed October 4, 2007), environmental groups challenge the Secretary of the Interior’s failure to issue updated stock assessment reports for marine mammals under his jurisdiction (sea otters, polar bears, walrus, and manatees) within the time frames mandated by the MMPA. The complaint asserts as examples that since the last stock assessment reports on the polar bear and walrus, “global warming has caused the loss of sea ice upon which [those species] depend....” The case was settled in late 2008, with deadlines for new stock assessments.

⁶⁵ 16 U.S.C. §§ 1531-1544. The ESA defines “take” similarly to the MMPA, *see supra* note 62. 16 U.S.C. § 1532(19).

⁶⁶ *See* John Kostyak and Dan Rohlf, *Conserving Endangered Species in an Era of Global Warming*, 38 *Envtl. L. Rptr.* 10203 (Apr. 2008); Sarah J. Morath, *The Endangered Species Act: A New Avenue for Climate Change Litigation?*, 29 *Pub. Land & Res. L. Rev.* 23 (2008); Ari Sommer, *Student Note, Taking the Pit Bull Off the Leash: Sicking the Endangered Species Act on Climate Change*, 36 *B.C. Env'tl. Affairs L. Rev.* 273 (2009).

Section 9 makes it unlawful to “take” a member of a listed endangered species,⁶⁷ and has been extended by regulation to most threatened species.⁶⁸ Exceptions from the take prohibition are possible, chiefly through incidental take permits. The other provision, section 7, demands that each federal agency “insure that any action authorized, funded, or carried out by such agency ... is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [designated critical habitat] of such species....”⁶⁹ To achieve this goal, section 7 directs a federal agency to consult with the appropriate wildlife agency—the FWS or National Marine Fisheries Service (NMFS)—to determine the effect its action may have on listed species or their habitats. This is called “section 7 consultation.” Then, the FWS or NMFS prepares a “biological opinion” concluding either that the proposed action would not violate the mandate of no jeopardy or adverse modification, or that it would violate the mandate, in which case FWS or NMFS must suggest “reasonable and prudent alternatives” that would not violate the mandate.

In *Natural Resources Defense Council v. Kempthorne*, 506 F. Supp. 2d 322 (E.D. Cal. 2007), environmental and sport fishing groups attacked the FWS biological opinion prepared for the 2004 Long-Term Central Valley Project and State Water Project Operations Criteria and Plan and certain related future actions. The biological opinion concluded that project operations would not jeopardize the continued existence of the Delta smelt, a threatened species, or adversely modify its designated critical habitat—that is, would not violate ESA section 7. The court, however, held that the biological opinion was arbitrary and capricious in ignoring data about climate change that may adversely affect the Delta smelt and its habitat. The court observed, for example, that the opinion was based on the assumption that the hydrology of the waters affected by the 2004 plan would follow historical patterns for the next 20 years, an assumption that studies on the potential effects of climate change on water supply reliability did not support.

A companion case pending before the same judge, *Pacific Coast Federation of Fishermen’s Associations/Institute for Fisheries Resources v. Gutierrez*, No. 1:06-CV-00245, 2008 WL 2223070 (E.D. Cal. May 20, 2008), successfully challenged the NMFS biological opinion prepared in connection with the same project for various salmon and trout species—based on its “total failure to address, adequately explain, and analyze the effects of global climate change on the species.” *Id.* at *60.

More ESA cases are likely on the way in connection with a campaign spearheaded by the Center for Biological Diversity (CBD). CBD has filed multiple petitions to have animals listed as endangered or threatened due in various degrees to climate change impacts on their habitat. Given that some of these petitions have been successful (and more may be in the future), the Center is likely to test in court whether substantial GHG sources run afoul of protections afforded those species by the ESA.

⁶⁷ 16 U.S.C. § 1538(a)(1)(B)-(C).

⁶⁸ By general rule, the Fish and Wildlife Service has extended all of the endangered species prohibitions to threatened animals. 50 C.F.R. § 17.31. “Special rules,” withdrawing particular threatened species from aspects of the general regime, have been promulgated for those species with atypical management needs, such as grizzly bears. 50 C.F.R. § 17.40(b).

⁶⁹ 16 U.S.C. § 1536(a)(2). Because section 7 is more easily triggered when the species’ habitat receives a formal designation as “critical habitat,” litigation to compel such designation is another aspect of environmental groups’ efforts to use the ESA against global warming. *See* ESA § 4(a)(3), 16 U.S.C. § 1533(a)(3).

Three climate-change-related proposals to list a species have reached the actual listing stage thus far. The first, in which climate change is only a contributing factor, was NMFS' listing of the staghorn coral and elkhorn coral as threatened in 2006.⁷⁰ The second, garnering considerably more attention, was the May 15, 2008 listing of the polar bear as threatened,⁷¹ under pressure of a court-imposed deadline requiring a decision for or against listing by that date.⁷² The polar bear listing was based largely on the many studies as to the disproportionately large impact of climate change on the Arctic and the resulting loss of sea ice required by polar bears as habitat.⁷³ The third, again with climate change but a contributing factor, is NMFS' listing of the black abalone as endangered in 2009.⁷⁴ In addition to the coral, polar bear, and abalone, CBD has petitioned the FWS to list as either endangered or threatened Kittlitz's murrelet, a seabird (2001), 12 species of penguins (2006), the American pika, an alpine mammal (2007), the ashy storm-petrel, another seabird (2007), the ribbon seal (2007),⁷⁵ the Pacific walrus (2008), and the ringed, bearded, and spotted seals (2008). In each instance, the Center asserts global warming to be a cause, principal or otherwise, of the species' plight. (Not included in this report are the CBD suits challenging agency failures to make the statutorily mandated interim findings in the petition process for listing, known as 90-day or 12-month findings.)

With the listing of the corals and polar bear—particularly the latter where the climate change nexus is so clear—the question moves to the fore whether operating a fossil-fuel-fired power plant or other major GHG source violates section 9—causes a prohibited “take”—through the effects of its GHG emissions, via climate change, on polar bear habitat.⁷⁶ Notable here is that “take” is statutorily defined to include “harm” to a member of a listed species, and “harm,” in turn, is defined by regulation to include certain “significant habitat modification[s] or degradation[s].”⁷⁷ The crux, presumably, is whether the causal link between the power plant's GHG emissions and the effect on the species habitat is sufficiently direct and substantial to constitute a “take,” a question beyond the scope of this report. If a take is found, the power plant would require an incidental take permit to operate, such permit likely containing restrictions on the amount of GHGs that could be emitted. Likewise, the argument runs, a federal agency issuing a permit for power plant construction might have to initiate section 7 consultation.

In 2008, under the George W. Bush Administration, the FWS repeatedly asserted that its listing of the polar bear would not implicate the ESA—neither section 9 nor section 7 -- based on the GHG emissions from an activity. The FWS sought to ensure the irrelevance of GHG emissions to the ESA in several ways. One way was by issuing a “special rule” for the polar bear under ESA section 4(d) stating that section 9 “take” prohibitions do not apply to “any taking of polar bears

⁷⁰ 89 Fed. Reg. 26,852 (May 9, 2006). The Center for Biological Diversity has also settled a suit requiring NMFS to designate critical habitat for ESA-listed corals. The final critical habitat rule is at 73 Fed. Reg. 72,209 (Nov. 26, 2008).

⁷¹ 73 Fed. Reg. 28,211 (May 15, 2008), codified at 50 C.F.R. § 17.11(h).

⁷² Center for Biological Diversity v. Kempthorne, No. 08-1339 (N.D. Cal. April 28, 2008).

⁷³ See CRS Report RL33941, *Polar Bears: Listing Under the Endangered Species Act*, by Eugene H. Buck, M. Lynne Corn, and Kristina Alexander.

⁷⁴ 74 Fed. Reg. 1,937 (January 14, 2009).

⁷⁵ Listing of the ribbon seal was denied by NMFS on December 30, 2008 (73 Fed. Reg. 79,822). CBD has filed its 60-day notice of intent to sue.

⁷⁶ See generally Brendan R. Cummings and Kassie R. Siegel, *Ursus maritimus: Polar Bears on Thin Ice*, Natural Res. & Env't (ABA) 3 (Fall 2007) (discussing how “the listing process for the polar bear highlights the possibilities and limitations of using the ESA to address otherwise unregulated GHG emissions”).

⁷⁷ 50 C.F.R. §§ 17.3 (Fish and Wildlife Service), 222.102 (NOAA Fisheries).

that is incidental to, but not the purpose of, carrying out an otherwise lawful activity” occurring anywhere in the United States except Alaska.⁷⁸ A half-dozen or more lawsuits challenging the polar bear listing and the accompanying “special rule”—most including grounds related to climate change -- were consolidated on December 3, 2008 in the D.C. federal district court by the Judicial Panel on Multidistrict Litigation.⁷⁹

Another way used by FWS (and NMFS) to keep the ESA and GHG emissions separate was by amending the section 7 consultation regulations to say that no consultation is required when a federal agency action is not anticipated to result in “take” and the action’s effects are “manifested through global processes” and either (a) cannot be reliably predicted at the scale of the species’ range, or (b) will have insignificant impact on the species or its habitat.⁸⁰ The amended section 7 regulations also lessen the chance that GHG emissions will trigger consultation by defining “indirect effects” of federal agency actions narrowly.⁸¹ Owing in greater or lesser degree to the amended rule’s impact on section 7 consideration of climate change, three lawsuits challenging the rule have been filed by environmental groups in the federal district court for the Northern District of California,⁸² and one has been filed there by the State of California.⁸³ They will likely be consolidated.⁸⁴

With the arrival of the Obama Administration, Congress in 2009 enacted a provision stating that the relevant Secretary may withdraw the polar bear special rule and the 2008 amendments to the consultation regulations “without regard to any provision of statute or regulation that establishes a requirement for such withdrawal.” This streamlined withdrawal authority expires 60 days from March 11, 2009.⁸⁵

⁷⁸ 73 Fed. Reg. 28,306 (May 15, 2008) (interim final rule); 73 Fed. Reg. 76,249 (Dec. 16, 2008) (final rule). Codified at 50 C.F.R. § 17.40(q)(4). Special rules, also known as “4(d) rules,” are authorized by ESA section 4(d) for threatened (not endangered) species that are considered to have special management needs. (By regulation, other threatened species receive the same protections that endangered species do.) The ESA permits considerable flexibility in the crafting of 4(d) rules, demanding only that they be “necessary and advisable to provide for the conservation of [the threatened] species.” 16 U.S.C. § 1533(d).

⁷⁹ *In re Polar Bear Endangered Species Act Listing and 4(d) Rule Litigation*, No. 1:08-mc-764. For background, see CRS Report RL34573, *Does the Endangered Species Act (ESA) Listing Provide More Protection of the Polar Bear?: A Look at the Special Rules*, by Kristina Alexander.

⁸⁰ 73 Fed. Reg. 76,272 (Dec. 16, 2008). Codified at 50 C.F.R. § 402.03(b).

⁸¹ Codified at 50 C.F.R. § 402.02.

⁸² *Center for Biological Diversity v. Kempthorne*, No. C 08-05546 MHP; *Natural Resources Defense Council v. U.S. Department of the Interior*, C 08-05605 MMC; *National Wildlife Federation v. Kempthorne*, No. C 08-05654 SI.

⁸³ *People of the State of California v. Kempthorne*, No. C 08-05775 EMC.

⁸⁴ Congress has entered the fray as well. H.R. 1431, sec. 306(b), amends the ESA by adding a new sentence: “The impact of greenhouse gas on any species of fish or wildlife or plant shall not be considered for any purpose in the implementation of this Act.”

⁸⁵ Omnibus Appropriations Act for FY 2009, P.L. 111-8, Div. E, § 429.

III. Energy Statutes

Energy Policy and Conservation Act

In *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 538 F.3d 1172 (9th Cir. 2008), 11 states (CA, CT, ME, MA, NJ, NM, NY, OR, RI, VT, MN), environmental groups and others attacked a 2006 rule promulgated by the National Highway Traffic Safety Administration (NHTSA) under the Energy Policy and Conservation Act (EPCA). The rule established corporate average fuel economy (CAFE) standards for light-duty trucks—defined by NHTSA to include many SUVs, vans, and pickup trucks—in model years 2008 through 2011.

EPCA says that the light-truck CAFE standard shall be the “maximum feasible” standard that manufacturers can achieve in a given model year.⁸⁶ The court found that even assuming NHTSA may use a cost-benefit analysis to determine the “maximum feasible” standard, it was arbitrary and capricious not to include in the analysis the benefit of carbon emissions reduction—calling this “the most significant benefit of more stringent CAFE standards.”⁸⁷ NHTSA had argued, for example, that the wide range of values put forward in studies as to how the benefits of reduced GHG emissions should be monetized justified placing no value on that benefit in its cost-benefit analysis. The court countered that while there is indeed a range of values in the studies, they are all greater than zero. Accordingly, the court remanded the CAFE standard to NHTSA for the agency to include a monetized value for carbon emission reduction in its analysis of the proper CAFE standard. (There was also a climate-change-related NEPA claim in this lawsuit, discussed in Section IV.)

Quite recently, CBD filed a petition for review of NHTSA’s rule setting the standard for model year 2011 passenger cars and light trucks.⁸⁸ It is unclear from the tersely worded petition whether climate change concerns underlie this suit, though given the court decision immediately above, it seems likely.

Outer Continental Shelf Lands Act

In a petition for review, CBD challenges the June, 2007 approval by the Secretary of the Interior of the Outer Continental Shelf Oil and Gas Leasing Program 2007-2012. *Center for Biological Diversity v. U.S. Dep’t of Interior* [sic], No. 07-1247 (D.C. Cir. filed July 2, 2007). CBD alleges that the Secretary violated the Outer Continental Shelf Lands Act⁸⁹ by failing to disclose or analyze the environmental and economic impacts from “the greenhouse gas emissions that would result from use of oil and gas produced as a result of the [Program].”⁹⁰ Note that it is not the GHG emissions from the oil and gas production itself that is at issue, but rather the GHG emissions resulting from the “use” of that oil and gas in cars, powerplants, or wherever. The defendant and intervenor-defendant briefs in this case focus heavily on standing, arguing among other things

⁸⁶ 49 U.S.C. § 32902(a).

⁸⁷ 538 F.3d at 1199.

⁸⁸ *Center for Biological Diversity v. National Highway Traffic Safety Admin.*, No. 09-70972 (9th Cir. filed April 3, 2009).

⁸⁹ 43 U.S.C. § 1331 et seq.

⁹⁰ Taken from Petitioner Center for Biological Diversity’s Non-Binding Statement of Issues, filed August 3, 2007.

that only states have standing under *Massachusetts v. EPA*. (There was also a climate-change-related NEPA claim in this lawsuit, discussed in Section IV.)

IV. Information Statutes

Much of the climate change litigation is based on statutory requirements that the government generate, compile, or disclose information.

National Environmental Policy Act

To be sure, the National Environmental Policy Act (NEPA) is more than just an information statute, declaring as it does a sweeping policy that the federal government must consider the environmental impacts of its actions. However, NEPA ensures that such environmental consideration will occur chiefly through the production of information, in the form of environmental assessments and environmental impact statements, and does not require that an agency choose from among its options the one with the least environmental impact.

The NEPA cases involving climate change represent the oldest and most numerous category of climate change litigation. Again, not all cases are mentioned in this report.⁹¹

The dominant issue has been whether plaintiffs have standing to sue—as mentioned, an issue on which plaintiffs may be helped by the 2007 Supreme Court decision in *Massachusetts v. EPA*. Thus, all the standing issues discussed here should be viewed through the prism of that decision. The standing determination has been particularly difficult in the context of NEPA, which confers only a *procedural* right (having a federal agency prepare an adequate environmental impact statement (EIS)), not a *substantive* right (having the agency select a particular course of action after preparing the EIS). Where courts have found standing and reached the merits, they have usually accepted that climate change impacts in the proper circumstances are a required consideration in an EIS.⁹²

District of Columbia Circuit

Standing barriers have proved particularly daunting in the D.C. Circuit, thus it is here that *Massachusetts v. EPA* may have its greatest effect. In the first significant climate change case, *City of Los Angeles v. National Highway Traffic Safety Admin.*, 912 F.3d 478 (D.C. Cir. 1990), the

⁹¹ An apparently exhaustive survey of the NEPA/climate change cases, decided and pending, is Joseph Mendelson III (Legal Director, Center for Food Safety and International Center for Technology Assessment), *Surveying the National Environmental Policy Act and the Emerging Issues of Climate Change, Genetic Engineering and Nanotechnology* (October 30, 2007) (copy on file with author).

⁹² See also International Center for Technology Assessment et al., *Petition requesting that the Council on Environmental Quality amend its regulations to clarify that climate change analyses be included in environmental review documents* (filed February 28, 2008). The Center for American Progress argues that President Obama should issue an executive order instructing federal agencies to consider climate change in their NEPA-mandated documents. Nancy Sutley, the chairwoman of CEQ appointed by President Obama, reportedly has said she will be considering the issue in response to both informal requests from federal agencies and the International Center for Technology Assessment petition. See generally Conor O'Brien, Student Note, *I Wish They All Could Be California Environmental Quality Acts: Rethinking NEPA in Light of Climate Change*, 36 B.C. Envtl. Affairs L. Rev. 239 (2009).

city attacked a NHTSA decision not to prepare an EIS when it set the corporate average fuel economy standard at 26.5 mpg for model year 1989 passenger cars—below the statutory default setting of 27.5 mpg.⁹³ A majority of the D.C. Circuit panel concluded that petitioners had standing based on their argument that had NHTSA done an EIS considering the climate change impacts of its one mpg rollback, the agency might have rejected it. This provided the requisite causal nexus, said the majority, between NHTSA’s decision not to do an EIS and climate change. In dissent, however, one judge argued that Article III demanded a more precise causal showing, with clear proof of a nexus between the agency action and harm to the petitioners. On the merits, one judge in the majority concluded that NHTSA had “inadequately explained why the admitted increase in carbon dioxide is insignificant within the context of the environmental harm posed by global warming.”⁹⁴ She would have remanded NHTSA’s NEPA decision but left the rollback in place in the meantime. Because the other majority judge ruled for the agency, however, the petition was denied.

The plaintiff-friendly *City of Los Angeles* standard for finding global-warming-based standing was to prove short-lived. Six years later, a divided D.C. Circuit declared *en banc* that to obtain standing, a procedural-rights plaintiff must show not only that the government omitted a required procedure, but that it is substantially probable that the procedural omission *will cause a particularized injury to the plaintiff*⁹⁵—adopting the dissenter’s position in that case. To the extent *City of Los Angeles* dispensed with the second, causation-of-a-particularized-plaintiff-injury requirement, it was expressly overruled. Still later court decisions, however, have cast doubt on this strict standard.⁹⁶

In *Foundation on Economic Trends v. Watkins*, 794 F. Supp. 395 (D.D.C. 1992), the standing bar was raised during, rather than after, the litigation. Plaintiffs claimed that NEPA required the Secretaries of Energy, Agriculture, and the Interior to evaluate the effect on climate change of 42 actions and programs under their authority. Plaintiffs’ standing argument was based on “informational standing,” under which failure to do an EIS discussing possible climate change impacts satisfies the injury requirement of standing merely by harming plaintiffs’ programs for disseminating information about climate change to the public. In so arguing, plaintiffs relied on a line of D.C. Circuit decisions going back two decades. Unfortunately for them, however, informational standing was limited by the D.C. Circuit during the pendency of their suit. An amended complaint by the individual plaintiff, arguing that his expected use of his oceanfront cottage may be curtailed if oceans rise from climate change, was also rejected. Among other things, said the court, the plaintiff had not met the causation requirement of standing in that he had not related the environmental harm he predicted to any of the 42 challenged agency actions. “[T]here is no ‘global warming’ exception to the standing requirements of Article III or the [Administrative Procedure Act],”⁹⁷ it asserted.

⁹³ Other model years were involved, too, but only the challenge to the model year 1989 CAFE standard involved a climate change argument.

⁹⁴ 912 F.2d at 501.

⁹⁵ *Florida Audubon Society v. Bentsen*, 94 F.3d 658 (D.C. Cir. 1996). The four dissenting judges argued that the majority had “misapplied the doctrine of standing to the assertion of a procedural right, such as the preparation of an EIS, with the consequence that it will be effectively impossible for anyone to bring a NEPA claim in the context of a rulemaking with diffuse impact.” *Id.* at 673.

⁹⁶ *See, e.g., Friends of the Earth v. Laidlaw Environmental Services*, 528 U.S. 167 (2000).

⁹⁷ 794 F.2d at 401.

In a suit described in Section III, *Center for Biological Diversity v. U.S. Dep't of Interior* [sic], No. 07-1247 (D.C. Cir. filed July 2, 2007), plaintiff charges that the Secretary of the Interior failed to analyze in the EIS for his five-year Outer Continental Shelf leasing program (1) the GHG emissions resulting from the use of the oil and gas produced under the program, and (2) the effects of global warming on the resources affected by the program “including, but not limited to, polar bears, walrus, and corals.”

In *Montana Environmental Information Center v. Johanns*, No. 07-CV-1311 (D.D.C. filed July 23, 2007), dismissed March 20, 2008, challenge was made to the Department of Agriculture’s Rural Utility Service’s use of low-interest loans to help finance the construction of at least eight new coal-fired powerplants. The charge was that the EIS for one plant is deficient because it fails to consider the cumulative impacts of GHG emissions from the eight new plants.

Ninth Circuit

The standing barriers in the D.C. Circuit seem to be attenuated in the Ninth Circuit where, as far as research reveals, plaintiffs raising climate change claims in NEPA suits have yet to encounter standing problems.

In 2002, environmental groups sued the Overseas Private Investment Corp. (OPIC) and Export-Import Bank of the United States alleging continued failure to comply with NEPA. These federal agencies provide insurance, loans, and loan guarantees for overseas projects, or to U.S. companies that invest in overseas projects. Plaintiffs alleged that these overseas projects include oil and gas extraction and refining, and power plants, which together result in the annual emission of billions of tons of GHGs, causing climate change in the United States.

In 2005, the district court held that plaintiffs had standing, given what it saw to be the relaxed standards in the Ninth Circuit for showing standing in cases alleging procedural violations—here, failure to prepare an EIS.⁹⁸ *Friends of the Earth v. Mosbacher*, 2005 Westlaw 2035596 (N.D. Cal. 2005). It is “reasonably probable,” said the court, that emissions from projects supported by the defendants will threaten plaintiffs’ concrete interests. In 2007, the court reached the merits, holding on summary judgment motions that defendants need not prepare a programmatic EIS for the energy projects they finance, and that neither side had shown, as a matter of law, that energy projects specifically listed in the complaint are or are not “major Federal actions” requiring an EIS. 488 F. Supp. 2d 889 (N.D. Cal. 2007). The case was settled February 6, 2009, the Export-Import Bank and OPIC agreeing to implement various measures for considering the GHG emissions of supported projects.⁹⁹

⁹⁸ In finding standing, the judge repudiated an earlier climate change/standing decision of the same court. In *Center for Biological Diversity v. Abraham*, 218 F. Supp. 2d 1143 (N.D. Cal. 2002), plaintiffs had sought enforcement of the Energy Policy Act as it related to the acquisition of alternative fuel vehicles by the United States. In rejecting standing, this decision spurned plaintiffs’ climate change concerns as “too general, too unsubstantiated, too unlikely to be caused by defendant’s conduct, and/or too unlikely to be redressed by the relief sought to confer standing.” In *Friends of the Earth*, the court neutralized this pronouncement by noting that “*Center for Biological Diversity* was decided before the Ninth Circuit clarified in [*Citizens for Better Forestry v. U.S. Dep’t of Agriculture*, 341 F.3d 961, 972 (9th Cir. 2003)] that environmental plaintiffs raising procedural concerns need not present proof that the challenged federal project will have particular environmental effects.”

⁹⁹ By the time of settlement, the case was styled *Friends of the Earth v. Spinelli*.

In *Border Power Plant Working Group v. Dep't of Energy*, 260 F. Supp. 2d 997 (S.D. Cal. 2003), plaintiff challenged the environmental assessment accompanying applications for permits and federal rights of way to build electricity transmission lines connecting new power plants in Mexico with the power grid in Southern California. In part because four of its members were seen to have procedural standing, the plaintiff organization was held to have organizational standing.¹⁰⁰ The court's standing discussion made no mention of climate change, however, perhaps because climate change was only a small part of plaintiff's case. On the merits, the court agreed with plaintiff that the environmental assessment was legally inadequate because, among other things, it failed to discuss CO₂ emissions from the powerplants and "[t]he record shows that carbon dioxide ... is a greenhouse gas."¹⁰¹

The decision in *Center for Biological Diversity v. NHTSA*, 538 F.3d 1172 (9th Cir. 2008), offers a *deja vu* to *City of Los Angeles*, discussed earlier in this section. Both cases involve a NHTSA rule setting a corporate average fuel economy (CAFE) standard—this time, for light-duty trucks (model years 2008-2011)¹⁰²—and in both cases, the agency did no EIS. Petitioners include 11 states (CA, CT, ME, MA, NJ, NM, NY, OR, RI, VT, MN) and four environmental groups. In sharp contrast with earlier NEPA/climate-change decisions, the United States in this case did not contest standing and the court decision does not mention it.

On the merits, the court held that NHTSA's environmental assessment for its CAFE rule, finding no significant impact, was inadequate owing to, among other things, its analysis of the rule's cumulative impacts from GHG emissions. Said the court: "The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct."¹⁰³ Nor did the Energy Policy and Conservation Act, the statute authorizing CAFE standards, limit NHTSA's duty to assess environmental impacts such as climate change. More specifically, while NHTSA's assessment indicated the expected amount of CO₂ emitted by light-duty trucks under the new CAFE standard, it failed to "evaluate the 'incremental impact' that these emissions will have on climate change ... in light of other past, present, and reasonably foreseeable actions such as other light truck and passenger automobile CAFE standards."¹⁰⁴ Finally, the court invoked the well-settled principle that an EIS must be prepared if substantial questions are raised as to whether a proposed project *may* have significant environmental impact, and held that petitioners' evidence raised the necessary level of doubt. Thus, the court ordered preparation of a full EIS. (There was also a climate change-related Energy Policy and Conservation Act claim, discussed in Section III.)

In *Center for Biological Diversity v. Kempthorne*, No. 3:07-CV-0141 (D. Alaska), transferred from No. 07-CV-00894 (N.D. Cal. filed February 13, 2007), environmental groups challenge a Fish and Wildlife Service "incidental taking" rule. As described in Section II, the rule authorizes the incidental take of polar bears and Pacific walrus by oil and gas activities in the Beaufort Sea and adjacent coastal areas of the Alaska north slope, from 2006 to 2011.¹⁰⁵ Plaintiffs challenge the

¹⁰⁰ An organization has standing to bring suit on behalf of its members when "(a) its members would otherwise have standing to sue in their own right; (b) the interests it seeks to protect are germane to the organization's purpose; and (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." *Hunt v. Washington State Apple Advertising Comm'n*, 432 U.S. 333, 343 (1977).

¹⁰¹ 260 F. Supp. 2d at 1028.

¹⁰² 71 Fed. Reg. 17,566 (April 6, 2006).

¹⁰³ 508 F.3d at 550.

¹⁰⁴ *Id.*

¹⁰⁵ 71 Fed. Reg. 43,926 (August 2, 2006).

environmental assessment and finding of no significant impact, charging that the Service put out the rule “without seriously analyzing the effects of climate change on them or their habitat.” The accusation is not that the oil and gas activities themselves contribute to climate change, but that direct harms to polar bears and walruses from those activities will be exacerbated by climate change impacts on the Arctic that are already stressing those species. In April, 2008, the district court ruled that the FWS had been reasonable in finding that the impacts of oil and gas activities in and along the Beaufort Sea, over the next five years, will fall short of NEPA’s “significant” threshold for requiring environmental assessments. An appeal has been filed.

Eighth Circuit

In *Mid States Coalition for Progress v. Surface Transportation Bd.*, 345 F.3d 520 (8th Cir. 2003), petitioners disputed the adequacy of an EIS prepared by the Surface Transportation Board to accompany its approval of a railroad’s proposal to construct new rail and upgrade existing rail. The proposed rail line was to provide a less expensive route by which low-sulfur coal in Wyoming’s Powder River Basin could reach powerplants, and thus might be expected to increase coal consumption and its attendant effects. In this regard, the court noted that CEQ’s NEPA regulations require that EISs cover both direct and indirect effects of proposed actions.¹⁰⁶ It concluded by finding it “irresponsible” for the Board to approve such a large project without first examining the possible effects of an increase in coal consumption—apparently, the opinion suggests (but does not explicitly say), including climate change.¹⁰⁷

In *Ranchers Cattlemen Action Legal Fund v. Conner*, No. 07-CV-01023 (D.S.D. filed October 24, 2007), plaintiffs challenge Department of Agriculture regulations easing restrictions on the import of live cattle and edible bovine products from “minimal risk” Mad Cow Disease regions (Canada). Plaintiffs assert that the environmental assessment was inadequate because it did not analyze the increased GHG emissions from the transportation of the cattle into the United States.

State NEPAs

A few GHG-related suits also have been filed under state “little NEPAs”—state laws requiring state (and sometimes local) agencies to consider the environmental impacts of their proposed actions, just as the federal NEPA does for federal agencies.¹⁰⁸ For example, in *General Motors Corp. v. California Air Resources Bd.*, No. 05-02787 (Cal. Sup. Ct. filed September 2, 2005), two car manufacturers claimed that the Board’s adoption of California’s GHG emission standards involved delayed and inadequate compliance with the state’s NEPA-type law. This suit offers as a prime reason for environmental analysis the argument that GHG emissions regulation has, in addition to a possible benefit, some environmental downsides. In particular, it contends that restriction of GHG emissions may cause an increase in new-vehicle sticker prices and a consequent decrease in the rate at which old, higher-emissions vehicles are retired from use.

Invoking California’s NEPA-like statute (the California Environmental Quality Act), conservation groups and California attorney general Jerry Brown sued in 2007 to require San Bernardino County, the largest county in the US by area, to address climate change in its General Plan

¹⁰⁶ 40 C.F.R. § 1508.8.

¹⁰⁷ See 345 F.3d at 550.

¹⁰⁸ See Dave Owen, Climate Change and Environmental Assessment Law, 33 Colum. J. Env’t L. 57 (2008).

update.¹⁰⁹ Later that year, California settled its lawsuit, the county agreeing to prepare a Greenhouse Gas Emissions Reduction Plan and adopt other measures.¹¹⁰ Later, the conservation groups took a voluntary dismissal of their suit after extracting promises from the county to do a mapping of wildlife habitat and research on wildfire dangers. In broaching the vast realm of local land use plans, these cases portend a major new front in climate change litigation, particularly in states that require environmental impact analysis.

Global Change Research Act

The Global Change Research Act of 1990 (GCRA)¹¹¹ commands the President to create an interagency United States Global Change Research Program to improve understanding of “global change.” Global change is defined broadly by the GCRA to include all changes in the global environment “that may alter the capacity of the Earth to sustain life.” Thus, the statute includes, but goes beyond, climate change.¹¹² The Program is to be implemented by a National Global Change Research Plan, with regular scientific assessments that evaluate the findings of the Program. The GCRA demands that revised Research Plans be submitted to the Congress at least every three years,¹¹³ with the last one having been submitted July, 2003. The statute further demands that scientific assessments be submitted to the President and Congress not less often than every four years,¹¹⁴ with the only assessment to date submitted October, 2000.

On these undisputed facts, the district court in *Center for Biological Diversity v. Brennan*, 571 F. Supp. 2d 1105 (N.D. Cal. 2007), had little difficulty finding that the Bush Administration had unlawfully withheld action it was required to take. It ordered defendants to publish a summary of the revised proposed Research Plan no later than March, 2008, with submission to Congress no later than 90 days thereafter.¹¹⁵ The court further ordered the scientific assessment to be produced by May, 2008. It should be noted that the great bulk of this opinion is devoted not to the foregoing violation and remedy, but to threshold matters: standing (finding procedural rights injury and informational injury, associational standing, and Administrative Procedure Act standing) and a motion to intervene by two Members of Congress (denied).

Freedom of Information Act

The Freedom of Information Act (FOIA)¹¹⁶ mandates that documents in the possession of federal executive branch agencies are to be disclosed to the public upon request, unless covered by a FOIA exemption.

¹⁰⁹ The attorney general lawsuit is *State of California v. County of San Bernardino*, No. CIV-SS07-00329 (Cal. Super. Ct. filed April 12, 2007).

¹¹⁰ Confidential Settlement Agreement, available at http://ag.ca.gov/cms_pdfs/press/2007-08-21_San_Bernardino_settlement_agreement.pdf.

¹¹¹ 15 U.S.C. §§ 2921-2961.

¹¹² See 15 U.S.C. § 2931(a) (congressional findings suggestive of the act’s scope).

¹¹³ 15 U.S.C. § 2934(a).

¹¹⁴ 15 U.S.C. § 2936.

¹¹⁵ The summary was published at 72 Fed. Reg. 73,771 (December 28, 2007).

¹¹⁶ 5 U.S.C. § 552.

In May, 2006, Citizens for Responsibility and Ethics in Washington (CREW) invoked FOIA to request from the Council on Environmental Quality (CEQ) all of its records relating to the causes of climate change, from January 20, 2001, to October 26, 2006. Though CEQ produced many documents, CREW sued under FOIA seeking a court order that CEQ release all records responsive to its request. *Citizens for Responsibility and Ethics in Washington v. Council on Environmental Quality*, No. 1:07CV00365 (D.D.C. filed February 20, 2007). The case has been stayed while CEQ efforts to comply continue.

This lawsuit parallels allegations at the time that political appointees in the Bush Administration CEQ edited many of the agency's reports to minimize the danger and human causes of climate change. In July, 2006, the House Committee on Government Reform¹¹⁷ requested that CEQ provide documents and communications relating to the agency's edits of climate change materials, its efforts to influence the statements of government scientists, its communications with federal agencies and nongovernmental parties regarding climate change, and so on. A report making findings was issued in December, 2007,¹¹⁸ with minority views.¹¹⁹

V. Common Law Tort

The widely diverse injuries predicted from climate change mean that a comparably diverse spectrum of plaintiffs and defendants could become involved in common law tort litigation based on such injuries. Possible plaintiffs include property owners (farmers dealing with reduced rainfall, owners of oceanfront homes dealing with rising sea level or increased storm activity), nonowner users of natural resources (ski resort operators, commercial fishermen), and state attorneys general bringing private or public nuisance claims (the former for injury to state-owned land, the latter on behalf of the state's citizenry to protect public health and well-being). Possible defendants include the companies that produce the fossil fuels whose combustion produces GHG emissions, entities that emit GHGs (chiefly fossil-fuel-fired powerplants, but many other sources also), and companies that manufacture or market products whose use creates GHG emissions (chiefly the automakers).¹²⁰

Several of these potential plaintiff and defendant categories are represented in the five climate-change-related tort cases known to be filed thus far (four discussed in the following text, one in footnote 130). Thus far, all of those tort actions that have produced court decisions have failed, either due to lack of standing or the political question doctrine, or both. Three are on appeal, however.

¹¹⁷ Renamed the House Committee on Oversight and Government Reform early in the 110th Congress.

¹¹⁸ *Political Interference with Climate Change Science Under the Bush Administration*, available at <http://oversight.house.gov/documents/20071210101633.pdf>.

¹¹⁹ On file with author.

¹²⁰ This nutshell on possible plaintiffs and defendants is adapted from David Hunter and James Salzman, *Negligence in the Air: The Duty of Care in Climate Change Litigation*, 155 U. Pa. L. Rev. 1741, 1750-1752 (2007).

Nuisance

Nuisance has been the principal tort theory used in cases seeking relief (injunctive or monetary) from harms caused by climate change.¹²¹

In 2004, eight states (CA, CT, IA, NJ, NY, RI, VT, WI) and New York City sued five electric utility companies.¹²² *Connecticut v. American Electric Power Co.*, Civ. No. 04 CV 05669 (S.D.N.Y. filed July 21, 2004). These defendants were chosen as allegedly the five largest CO₂ emitters in the United States, through their fossil-fuel-fired electric powerplants. Invoking the federal and state common law of public nuisance,¹²³ plaintiffs seek an injunction requiring defendants to abate their contribution to the nuisance of climate change by capping CO₂ emissions and then reducing them. Plaintiffs sue both on their own behalf to protect state-owned property (e.g., the hardwood forests of the Adirondack Park in New York), and as *parens patriae* on behalf of their citizens and residents to protect public health and well-being.

On the same day, three land trusts filed a similar suit against the same defendants, in the same court, adding a private nuisance claim.¹²⁴ *Open Space Institute v. American Electric Power Co.*, No. 04 CV 05670 (S.D.N.Y. filed July 21, 2004). They seek to protect land owned and preserved by them in the state of New York, which they claim to be threatened by climate change.¹²⁵ This suit was consolidated with the state suit.

In a series of motions, defendants sought to have these actions dismissed on a wide spectrum of threshold grounds. Though the case has now been decided by the trial court on a single threshold issue, it is worth reviewing some of the grounds advanced in these motions because they may reappear later, in this or other private GHG litigation. To reiterate, many of these grounds typify the difficulties encountered when one seeks to address through private litigation a ubiquitous, long-term environmental problem to which countless parties contribute.

In a dismissal motion, some defendants argued there is no federal common law cause of action for climate change. Creating such federal common law, they argued, runs afoul of Supreme Court directives that federal courts do so only in limited areas—especially where, as with climate change, the problem at issue has sweeping implications. Even assuming a viable federal common-law nuisance theory, they continued, Congress’s enactment of a comprehensive scheme of air pollution regulation in the CAA displaces federal court authority in this area. Defendants also

¹²¹ See generally Thomas W. Merrill, *Global Warming as a Public Nuisance*, 30 Colum. J. Envtl. L. 293 (2005); Matthew F. Pawa, *Global Warming: The Ultimate Public Nuisance*, 39 Envtl. Law Rptr. 10230 (March 2009); Jim Gitzlaff, *Getting Back to Basics: Why Nuisance Claims Are of Limited Value in Shifting the Costs of Climate Change*, 39 Envtl. Law Rptr. 10218 (March 2009).

¹²² American Electric Power Co., Inc., The Southern Co., Cinergy Corp., Tennessee Valley Authority, and Xcel Energy, Inc.

¹²³ An activity is a public nuisance if it creates an unreasonable interference with a right common to the general public. Unreasonableness may rest on the fact that the activity significantly interferes with public health and safety, or has produced a permanent or long-lasting effect and, as the actor knows or has reason to know, has a significant effect on the public right. RESTATEMENT (SECOND) OF TORTS § 821B (1979).

¹²⁴ An activity is a private nuisance if it is a nontrespassory invasion of another’s interest in the private use and enjoyment of land. *Id.* at § 821D.

¹²⁵ See Vincent S. Oleskiewicz and Douglas B. Sanders, *The Advent of Climate Change Litigation Against Corporate Defendants*, BNA Daily Env’t Rpt. B-1 (November 15, 2004). The authors review the *State of Connecticut* and *Open Space Institute* suits in some detail, assess the defenses available in tort-based climate change suits generally, and extract clues as to the potential success of such litigation from the history of litigation against tobacco companies.

challenge plaintiffs' standing to sue. Plaintiffs, they argued, have not demonstrated the "injury in fact" requisite of standing because they allege only injuries from climate change in the indefinite future. Nor, said these defendants, have plaintiffs shown "causation" because they do not allege that defendants' conduct will directly cause the consequences of climate change—especially since defendants' collective emissions are admitted to be less than 2-1/2% of the global total from human activities.¹²⁶ As mentioned, the viability of these federal common law of nuisance and non-standing arguments by defendants may be significantly affected—the displacement argument helped, the others hurt—by *Massachusetts v. EPA*.

Another motion to dismiss asserted that to the limited extent a federal common law claim to abate an interstate nuisance has been recognized, it has been limited to actions brought by state entities. Nor, said defendants, can plaintiffs assert public nuisance, because they have not alleged special injury to their properties, or private nuisance, because they have not alleged substantial harm.

As indicated, the dismissal motions in *Connecticut* and *Open Space Institute* have now been ruled on by the district court,¹²⁷ which dismissed the cases on political question grounds. This judicial doctrine requires a court to look into "the appropriateness under our system of government of attributing finality to the action of the political departments [i.e., the legislative and executive branches] and also the lack of satisfactory criteria for a judicial determination...."¹²⁸ One situation judicially recognized as pointing to a political question, hence dismissal of the action, is "the impossibility of deciding [the case] without an initial policy determination of a kind clearly for nonjudicial discretion."¹²⁹ This situation, said the court, perfectly fit the GHG cases, touching as they do on so many areas of national and international policy. As a political question, the court believed the climate change issue in these suits to be for the legislature, not the courts, to resolve. Very possibly, the amorphousness of nuisance law, giving the court little guidance in resolving these cases, may have hurt the plaintiffs' cause. These cases are now on appeal to the Second Circuit.¹³⁰

A second nuisance action was filed in 2006 by California against several automobile manufacturers based on the alleged contributions of their vehicles to climate change impacts in the state. The suit asserts that these impacts constitute a public nuisance under federal or state common law, and seeks monetary damages (plaintiffs in *Connecticut* seek injunctive relief). The district court dismissed the suit on the same political-question rationale as in *Connecticut*—namely, "the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion." *California v. General Motors Corp.*, 2007 Westlaw 2726871 (N.D. Cal.

¹²⁶ An interesting question raised by the Prof. Merrill article, *supra* note 121, is whether these general standing requirements, developed in the context of private lawsuits, should apply in a suit such as *State of Connecticut*—that is, in a *parens patriae* suit brought by state attorneys general under public nuisance law.

¹²⁷ *Connecticut v. American Elec. Power*, 406 F. Supp. 2d 265 (S.D.N.Y. 2005).

¹²⁸ *Baker v. Carr*, 369 U.S. 186, 210 (1962).

¹²⁹ *Id.* at 217.

¹³⁰ Presumably two of the plaintiffs, New York State and New York City, have been able to support their standing to sue by arguments not contrary to those they made *against* plaintiff standing in another public-nuisance climate change case in which they were the defendants. Avoiding contradictory arguments was presumably facilitated by the idiosyncratic nature of the global-warming harms alleged by the *pro se* plaintiff—e.g., those based on plaintiff's enhanced vulnerability to disease-causing pollution as compared to the general population. According to the court, plaintiff appeared to be requesting an injunction ordering the defendants to stop polluting and use his invention for reducing carbon dioxide emissions. *Korsinsky v. U.S. EPA*, 192 Fed. Appx. 171 (2d Cir. 2006) (affirming district court dismissal based on lack of standing).

September 17, 2007). The need for an “initial policy determination” by the political branches was supported, in the court’s view, by the complexity of the climate change issue, the need for political guidance in divining what is an “unreasonable” interference with the public’s rights (the definition of a public nuisance), and the global warming debate in the political branches. Ironically, the environmental “win” in *Massachusetts v. EPA* was cited by the court against the state, both because that decision found authority over GHG emissions to lie with the federal government and because it recognized a state’s standing to press its grievances at the federal level. An appeal to the Ninth Circuit is pending.

Most recently, a native village on the northwest Alaska coast sued certain oil and energy companies, claiming that the large quantities of GHGs they emit collectively contribute to climate change. Climate change, the village contends, is destroying the village by melting Arctic sea ice that formerly protected it from winter storms, leading to massive coastal erosion. *Native Village of Kivalina v. Exxonmobil Corp.*, No. 08-cv-01138 (N.D. Cal. filed February 26, 2008). Indeed, the complaint asserts, “[t]he U.S. Army Corps of Engineers and U.S. Government Accountability Office have both concluded that the village must be relocated due to global warming....” The village invokes the federal common law of public nuisance, and state statutory or common law of private and public nuisance, and makes a civil conspiracy claim. The conspiracy claim asserts that some of the defendants have engaged in agreements to participate in the intentional creation or maintenance of a public nuisance—that is, global warming—by misleading the public as to the science of global warming. The suit seeks monetary damages.

Negligence, etc.

Owners of Mississippi property damaged by Hurricane Katrina sued certain oil, coal, and chemical companies, alleging a multistep chain of causation: the companies emitted GHGs, which contributed to global warming, which made the waters of the Gulf of Mexico warmer, which caused Hurricane Katrina to become more intense as it passed over the Gulf than it would otherwise have been, which increased the harm to plaintiffs’ property caused by the hurricane. Plaintiffs asserted various state-law tort claims, including negligence, nuisance (public and private), and trespass, and seek compensatory damages; they request punitive damages for gross negligence. Further, they claimed fraud and conspiracy to commit fraud, alleging that the oil and coal companies disseminated misinformation about global warming. Finally, plaintiffs made claims against their home insurance companies (e.g., breach of fiduciary duty claim for misrepresenting policy coverage, and violation of a state consumer-protection act) and their mortgage companies (arguing that they may not claim sums owed by plaintiffs for the value of the mortgaged property that was uninsured).

The district court, sitting in diversity, dismissed the action for lack of plaintiff standing. *Comer v. Murphy Oil USA, Inc.*, Civ. Action No. 1:05-CV-436-LG-RHW (S.D. Miss. August 30, 2007). With regard to certain defendants, the court also found plaintiffs’ claims nonjusticiable under the political question doctrine—as in the decisions above where nuisance was the sole legal theory advanced. An appeal to the Fifth Circuit is pending.

VI. Federal Preemption

Stationary Sources of GHG Emissions

The question of whether federal law preempts state regulation of GHG emissions arises chiefly in connection with *mobile* sources. With limited exceptions, the CAA disclaims any intention to preempt state air pollution controls on *stationary* sources.¹³¹ And the Energy Policy and Conservation Act does not set fuel economy standards for other than mobile sources, so it too would be unlikely to preempt state regulation of stationary sources. However, some have asserted that state regulation of stationary-source GHGs is preempted as contrary to the federal government's authority over foreign policy—an argument being pressed, so far unsuccessfully, in litigation attacking state regulation of *mobile-source* GHG emissions (see below). The most prominent state enactment limiting GHG emissions from stationary sources is that of California, which as yet has not been challenged.¹³²

Mobile Sources of GHG Emissions: CAA Preemption

The picture is quite different for mobile sources, where preemption is the general rule. The CAA preempts states from adopting any “standard relating to the control of emissions from new motor vehicles ...,”¹³³ and the act defines “emission standard” as certain limits on “emissions of *air pollutants*.”¹³⁴ The Supreme Court has now held that at least for purposes of mobile sources, “air pollutants” includes GHGs. Thus, CAA preemption of state regulation of car and truck GHG emissions is clear, whether or not EPA proceeds to regulate a particular mobile-source GHG. It would seem, then, that states are preempted from setting emission standards for CO₂, methane, and hydrofluorocarbons—three substances said to enhance climate change—even though EPA has not set mobile-source emission standards for them.

An exception to the general CAA rule preempting state mobile-source emission regulation is that EPA may waive CAA preemption for one particular state, California, if that state requests a

¹³¹ CAA § 116, 42 U.S.C. § 7416. The exceptions in this nonpreemption provision say that states may not adopt emission limitations for stationary sources that are *less* stringent than those in state implementation plans, new source performance standards, or national emission standards for hazardous air pollutants.

¹³² See Global Warming Solutions Act of 2006, A.B. 32, Cal. Health & Safety Code § 38500 et seq. This law requires that GHG emission limits be in effect in California by 2012 to reduce statewide GHG emissions to the 1990 level by 2020. Note, however, that although A.B. 32 applies chiefly to stationary sources, it provides that if the mobile source GHG emission limits imposed by an earlier state enactment are struck down, “alternative regulations” to restrict mobile-source GHG emissions shall be imposed under A.B. 32. As the following paragraphs of the text discuss, this earlier enactment is now the subject of a preemption challenge.

¹³³ CAA § 209(a), 42 U.S.C. § 7543(a).

¹³⁴ CAA § 302(k), 42 U.S.C. § 7602(k). Emphasis added.

waiver.¹³⁵ Further, when EPA does grant California a waiver, the act automatically extends it to almost all states with mobile-source emission limits identical to California's.¹³⁶

Under this “California waiver” authority, California requested a preemption waiver for its GHG emissions regulations on December 21, 2005. These regulations had been promulgated under a 2002 California enactment that was the first in the nation to call for limits on GHG emissions from mobile sources. Assembly Bill 1493¹³⁷ instructs the California Air Resources Board (CARB) to adopt regulations that achieve the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks. The CARB adopted the required regulations in 2004. The regulations target CO₂, methane, nitrous oxide, and hydrofluorocarbon emissions, setting “fleet average greenhouse gas exhaust mass emission requirements for passenger car, light-duty truck, and medium-duty passenger vehicle weight classes.” The first model year to which the fleet averages apply is 2009. The averages are reduced for each subsequent model year through 2016.

On December 19, 2007, almost two years after California requested the waiver, the EPA Administrator wrote the California governor that he intended to deny the state's request. On January 3, 2008, two petitions for review of this letter, arguing that it constituted final agency action on the waiver request, were filed in the Ninth Circuit. However, with the issuance of EPA's March 6 decision document,¹³⁸ these suits based on the EPA letter were dismissed and replaced by a suit in the D.C. Circuit challenging that document. Petitioners in *State of California v. U.S. EPA*, No. 08-1178 (D.C. Cir. filed May 5, 2008) are California, 18 other states, and numerous environmental groups. Most of the California congressional delegation, including Speaker of the House Nancy Pelosi and Senators Boxer and Feinstein, are participating as amici in support of the petitioners.¹³⁹ With the arrival of President Obama, the California Air Resources Board and President Obama (by executive order) requested EPA to reopen the waiver-denial matter—which EPA did on February 12, 2009.¹⁴⁰ On February 25, 2009, motion was granted to hold *State of California* in abeyance pending the Obama Administration EPA's reconsideration of California's petition.¹⁴¹

Mobile Sources of GHG Emissions: Non-CAA Preemption

That the CAA preempts state GHG regulation of mobile sources cannot be seriously questioned, absent a California waiver. The following preemption litigation is significant for the *non-CAA* preemption claims being pressed. If successful, these claims would prevent California and other

¹³⁵ CAA § 209(b), 42 U.S.C. § 7543(b). Under section 209(b), EPA “shall” grant the waiver “if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable federal standards.” However, no waiver shall be granted if EPA finds that the state's determination is arbitrary and capricious, the state does not need the standards to meet “compelling and extraordinary conditions,” or the state standards and accompanying enforcement procedures are inconsistent with CAA section 202(a).

¹³⁶ CAA § 177, 42 U.S.C. § 7507. Section 177 limits its extension of the section 209 waiver to those states that have approved nonattainment-area plans. This includes all states except North Dakota, South Dakota, and Hawaii.

¹³⁷ Cal. Health & Safety Code § 43018.5.

¹³⁸ 73 Fed. Reg. 12,156 (March 6, 2008).

¹³⁹ See generally CRS Report RL34099, *California's Waiver Request Under the Clean Air Act to Control Greenhouse Gases From Motor Vehicles*, by James E. McCarthy and Robert Meltz.

¹⁴⁰ 74 Fed. Reg. 7,040 (February 12, 2009).

¹⁴¹ See generally Kristien G. Knapp, *The Legality of EPA's Greenhouse Gas Waiver Denial*, 39 *Env'tl. L. Rptr.* 10127 (February 2009).

states from implementing the California mobile-source standards *even if EPA's denial of the waiver is administratively or judicially reversed.*

The chief non-CAA preemption theory in this litigation is based on the Energy Policy and Conservation Act (EPCA, also noted in Section III). EPCA is the authority under which the National Highway Traffic Safety Administration (NHTSA) establishes corporate average fuel economy standards (“CAFE standards”).¹⁴² As recently amended, EPCA requires NHTSA to prescribe separate fuel economy standards for passenger and non-passenger automobiles beginning with model year 2011, to achieve a combined fuel economy average for model year 2020 of at least 35 miles per gallon.¹⁴³ More pertinent here, EPCA preempts states from adopting laws “related to” the federal fuel economy standards.¹⁴⁴ The auto industry argues that the only known way to reduce GHG emissions is to improve gas mileage, so that a state regulation of auto GHG emissions is a law “related to” the federal emission standard, hence invalid.

Non-CAA preemption suits, brought by auto interests, are pending in four of the federal judicial circuits containing a state that has adopted GHG controls on vehicles. Two decisions on the merits have been handed down, from Vermont (First Circuit) and California (Ninth Circuit). Both reject the preemption theories presented.

In the first to be decided, *Green Mountain Chrysler Plymouth Dodge v. Crombie*, 508 F. Supp. 2d 295 (D. Vt. 2007), the court ruled that the relationship between Vermont’s California-identical GHG standards and EPCA was better analyzed as an interplay between two federal statutes (EPCA and the CAA) rather than as a federal preemption question. So viewing the matter, the court pointed out that NHTSA has consistently treated EPA-approved California mobile source emissions standards as constituting “other motor vehicle standards of the Government,” which EPCA says NHTSA must consider when setting CAFE standards.¹⁴⁵ This suggests that EPCA was meant to coexist with the CAA, rather than supersede it. Moreover, noted the court, in a related context the Supreme Court’s *Massachusetts v. EPA* decision saw the EPCA CAFE provisions as harmonious with the CAA.¹⁴⁶ Thus, the court found the relationship between the CAA waiver authority and the EPCA CAFE provisions to be one of overlap, but not conflict. Despite its conclusion that preemption doctrine did not apply, the court did a preemption analysis anyway, finding that Vermont’s GHG standards were preempted neither by EPCA nor as an intrusion upon the foreign policy authority of the United States. An appeal is pending.

In the second decision, *Central Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F. Supp. 2d 1151 (E.D. Cal. 2007), a district court similarly rejected claims that California’s regulation of GHG emissions from cars and trucks was precluded by EPCA, preempted by EPCA, or preempted as an intrusion of state law on federal authority to conduct foreign affairs. An appeal in this case is pending as well.

The legal theories pressed in the *Crombie* and *Goldstene* litigation are similar to those in two Rhode Island suits, consolidated as *Lincoln Dodge, Inc. v. Sullivan*, No. 1:06-CV-00070 (D.R.I. filed February 13, 2006), challenging that state’s adoption of the California standards. Recently, the district court held that the claims of the auto manufacturers and trade associations in this case

¹⁴² EPCA’s fuel economy provisions are at 49 U.S.C. §§ 32901-32919.

¹⁴³ *Id.* at § 32902(b)(2)(A).

¹⁴⁴ *Id.* at § 32919.

¹⁴⁵ *Id.* at § 32902(f).

¹⁴⁶ 549 U.S. at 532.

were barred by collateral estoppel, a legal doctrine that prohibits parties from relitigating issues they have already adjudicated, as these plaintiffs had done in *Crombie* and *Goldstene*. The Rhode Island auto dealers, by contrast, had themselves never raised the issues in the case and thus were held to be viable plaintiffs, allowing the case to proceed. In yet another preemption case, New Mexico's adoption of the California GHG standards has been challenged as preempted under EPCA in *Zangara Dodge, Inc. v. Curry*, No. 1:07-CV-01305 (D.N.M. filed December 27, 2007).

VII. State Statutes

The first climate-change decision involving state statutes (other than nuisance statutes) appears to be *Matter of Quantification of Environmental Costs*, 578 N.W.2d 794 (Minn. App. 1998). This case involved a state law requiring the state's public utilities commission to determine environmental cost values for each method of energy generation, and to use those values in proceedings before the commission. The commission set values for six pollutants, including CO₂. Petitioners' challenge to the CO₂ value was rejected on the grounds that (a) notwithstanding the speculative nature of some of the data, the ALJ conducted a careful review based on sufficient evidence in the record, (b) the determination that CO₂ negatively affects the environment was proper,¹⁴⁷ and (c) the determination as to CO₂ value otherwise comported with the governing statute.

In 2000, the City of Seattle adopted a goal of meeting its electricity needs with "no net greenhouse gas emissions." To achieve this goal, the city ordered the city-owned electric utility to offset its GHG emissions by paying others to reduce their GHG emissions. The utility did so, largely through agreements paying other entities to use cleaner fuels. This made the utility (according to its press release) "the first large electric utility in the country to effectively eliminate its contribution of harmful greenhouse gas emissions." In *Okeson v. City of Seattle*, 150 P.3d 556 (Wash. 2007) (en banc), however, the utility's ratepayers argued that this offset arrangement was not authorized by the state's utility enabling act. The Washington Supreme Court agreed, explaining that the purchase of GHG offsets was not impliedly authorized by the enabling act in that the offset contracts were not proprietary because they were not part of the services for which ratepayers are billed, nor were they within the enabling act's purposes.

A pair of cases deals with permit applications by electric utilities seeking to build new facilities. In *In re Otter Tail Power Co.*, 744 N.W.2d 594 (S.D. 2008), environmental intervenors urged the South Dakota public utilities commission to deny a permit to build a coal-fired energy conversion facility, in light of the substantial CO₂ it would emit. Notwithstanding, the commission granted the permit, and the state supreme court sustained. The commission, it held, was not clearly erroneous in finding that the added CO₂ threatened no "serious" injury to the environment, the state's statutory standard. Deference to the commission was particularly appropriate, it said, because the CO₂ from the facility would increase national CO₂ emissions by only .07%, and neither Congress nor the state had chosen to regulate CO₂ emissions.

By contrast, the permit was ultimately denied in Kansas. After applying for a PSD construction permit¹⁴⁸ for two 700-megawatt coal-fired power plants, the Sunflower Electric Power Corp. initially received a favorable response from the state agency, which asserted it would not consider

¹⁴⁷ The court made clear its discomfort in second-guessing the ALJ on a scientific matter unfamiliar to the court.

¹⁴⁸ See *supra* note 26.

CO₂ in connection with the application owing to the national and international character of climate change. Later, however, the agency invoked a state law providing it with emergency powers when emissions present a substantial endangerment to the health of persons or the environment.¹⁴⁹ Using this authority, and specifically citing the large volume of CO₂ from the proposed plants, the agency denied the permit in 2007. Three times in 2008 and once in 2009 the Kansas legislature passed laws that would have required Sunflower's application to be evaluated without taking CO₂ emissions into account, but each was vetoed by Governor Sebelius. In response to the 2008 vetoes, Sunflower filed several suits now pending in state and federal court. In federal court, in *Sunflower Electric Power Corp. v. Sebelius*, No. 08-2575 (D. Kan. filed November 17, 2008), Sunflower alleges first that the permit denial violates equal protection because it prohibits CO₂ emissions from the proposed plants when the state has authorized, and continues to authorize, other CO₂ sources in Kansas. Second, Sunflower claims a violation of the Dormant Commerce Clause¹⁵⁰ in that the permit denial was allegedly motivated by the fact that much of the electricity to be generated by the proposed plants would be sold out of state.

VIII. Insurance Policy Litigation

Research reveals only one lawsuit contesting insurance policy coverage of injuries or liability arising from climate change, though the future is likely to see more. One of the energy companies sued in tort by the Village of Kivalina (see Section V) is now being sued by the insurance company holding its commercial general liability policy. *Steadfast Insurance Co. v. The AES Corporation*, No. 2008-858 (Va. County Ct. filed July 9, 2008). The insurance company seeks a declaratory judgment that, it hopes, will decree it is not obligated under the policy to provide either defense or indemnity coverage to the energy company in the litigation brought by the Village of Kivalina. The insurer's arguments are three: (1) the policy applies only to an "accident," which is not the basis of the suit against the energy company by the *Kivalina* plaintiffs; (2) the policies do not apply to injury that began before the earliest of the insurance policies (September 2003), which the injuries here did; and (3) all of the conditions for avoiding the policy's pollution exclusion have not been met (e.g., the pollution alleged by the *Kivalina* complaint was not unexpected).

More significant than the coverage of current liability and casualty policies is the long-term challenge posed by climate change to the insurance industry.¹⁵¹

IX. International Law

Reports suggest that the successor to the Kyoto Protocol may contain provisions by which wealthy industrialized nations contribute to the adaptation costs of developing countries affected by climate change. Lurking in the background, however, is the question whether the major GHG emitting nations can be sued in international fora for the adverse effects of climate change.

¹⁴⁹ Kansas Stat. Ann. § 65-3012.

¹⁵⁰ The "Dormant Commerce Clause" is a judicially created corollary of the Commerce Clause in Art. I, section 8 of the U.S. Constitution. It asserts that states may not impose undue burdens on interstate commerce.

¹⁵¹ See, e.g., Sean B. Hecht, *Climate Change and the Transformation of Risk: Insurance Matters*, 55 UCLA L. Rev. 1559 (2008); Justin Pidot, Georgetown Environmental Law and Policy Inst., COASTAL DISASTER INSURANCE IN THE ERA OF GLOBAL WARMING: THE CASE FOR RELYING ON THE PRIVATE MARKET (2007).

Gauging the viability of such claims involves a good deal of guesswork, as they lie on the frontiers of international law. This report, concerned primarily with actually filed claims, notes only a few highlights, taken mostly from what appears to be the most pertinent article in the area.¹⁵² The article suggests that the International Court of Justice (ICJ) might be one forum for resolution of climate change claims, with jurisdiction established through treaties that specifically provide for dispute resolution before the court. A problem with the ICJ approach is that the treaties most likely to be invoked are Friendship, Commerce, and Navigation or similar treaties, which focus on how each party *within its own country* treats the other country's nationals and property. A climate change suit, by contrast, likely would have an extraterritorial focus. Another ICJ possibility would be for the court to render an advisory opinion, at the request of a body authorized under the U.N. Charter to request one.

Other possibilities include voluntary submission of a climate change dispute to any of several international arbitral forums or resort to the specialized dispute resolution systems created under various treaties. An example of the latter, reportedly being actively considered, is a fisheries conservation agreement under the UN Law of the Sea Convention, presumably on the argument that increased ocean temperatures from climate change imperil certain fish stocks.¹⁵³

Some principles that might be applied to a claim alleging GHG-caused injury might be taken from the international law of transboundary pollution. For example, the Restatement (Third) of Foreign Relations Law describes an international law principle under which a nation must “take such measures as may be necessary, to the extent practicable under the circumstances, to ensure that activities within its jurisdiction or control ... are conducted so as not to cause significant injury to the environment of another state....”¹⁵⁴ Similarly, the *Trail Smelter* arbitration decision, probably the seminal ruling on state liability for transboundary pollution, declared that “[a] State owes at all times a duty to protect other States against injurious acts by individuals from within its jurisdiction.”¹⁵⁵ Of course, as with the domestic common law litigation described in Section V, daunting hurdles confront the claimant in making the link between climate change in general and specific environmental harms, and in apportioning how much of such harms are attributable to the charged party or parties, in this instance the United States.

Research reveals only one climate-change-related international law action filed against the United States. Not surprisingly, it was filed by a group based in the Arctic, where the temperature rise from climate change has been among the fastest. In 2005, the Chair of the Inuit Circumpolar Conference, on behalf of herself and all affected Inuit of the arctic regions of the United States and Canada, filed a petition against the United States with the Inter-American Commission on Human Rights, the investigative arm of the Organization of American States (OAS).¹⁵⁶ The

¹⁵² Andrew L. Strauss, *The Legal Option: Suing the United States in International Forums for Global Warming Emissions*, 33 *Env'tl. L. Rptr.* 10185 (2003).

¹⁵³ Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 34 *Int'l Legal Materials* 1547. The United States is a party to this agreement and, by reference to the Law of the Sea Convention, it incorporates binding dispute-resolution mechanisms.

¹⁵⁴ RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 601(1). *See also* Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 ICJ Reports 226, 241-242 (July 8, 1996) (“the existence of the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other states or of areas beyond national control is now part of the corpus of international law relating to the environment”).

¹⁵⁵ *Trail Smelter (U.S. v. Canada)*, 3 R.I.A.A. 1938, 1965 (March 11, 1941).

¹⁵⁶ For an eight-page summary of the 176-page petition, go to http://earthjustice.org/library/legal_docs/summary-of-inuit-petition-to-inter-american-council-on-human-rights.pdf.

petition alleged that the United States, through its failure to restrict its GHG emissions and the resultant climate change, has violated the Inuit's human rights—including their rights to their culture, to property, to the preservation of health, life, and physical integrity, and so on.¹⁵⁷ Inuit culture is described in the petition as “inseparable from the condition of [its] physical surroundings.” Generally, the Inter-American Commission on Human Rights is empowered to recommend measures that contribute to human rights protection, request states in urgent cases to adopt specific precautionary measures to avoid serious harm to human rights, or submit cases to the Inter-American Court of Human Rights. The United States, however, has not accepted the jurisdiction of this court, so the Inuit petition sought only to have the Commission prepare a report declaring the responsibilities of the United States and recommending corrective measures.

In 2006, the Inuit petition was rejected, with no reasons given (as is customary for the Commission). However, at the request of petitioners the Commission held a hearing on March 1, 2007 on the generic issue of climate change and human rights. One may speculate that the Commission felt more comfortable with the hearing format than the petition because the former did not single out the United States. Or that the Commission was concerned the petition took it into a realm of global scale, orders of magnitude vaster than the typical human rights petition it receives.

In 2005-2006, five petitions were submitted to the Intergovernmental Committee for the Protection of the Cultural and Natural Heritage of Outstanding Universal Value (World Heritage Committee), part of UNESCO.¹⁵⁸ The petitions request that various designated World Heritage Sites be placed on the List of World Heritage in Danger¹⁵⁹ owing to alleged impacts of climate change. The sites covered by the petitions are Waterton-Glacier International Peace Park (U.S./Canada), Sagarmatha National Park (Nepal), Belize Barrier Reef Reserve System (Belize), Huascarán National Park (Peru), and the Great Barrier Reef (Australia). Only the Waterton-Glacier petition was filed by entities within the United States (12 environmental groups) and involves a natural resource within the United States. As a party to the World Heritage Convention, the United States is obligated to “do all it can ... to the utmost of its own resources and, where appropriate, with any international assistance and cooperation” to protect its cultural and natural heritage.¹⁶⁰

In 2006, the World Heritage Committee acknowledged the five petitions but appeared desirous of shifting the debate toward the use of existing committee mechanisms at individual sites to adapt to the threat of climate change.¹⁶¹ Since then, a few additional petitions to place sites on the danger list have been filed, most interestingly a petition titled “The Role of Black Carbon in Endangering Sites Threatened by Glacial Melt and Sea Level Rise.”¹⁶² This petition notes that “[r]ecent scientific studies identify black carbon, a component of fine particulate matter, as a key climate forcing agent....”¹⁶³ It then asserts that high latitude and high altitude glaciers and low-

¹⁵⁷ See generally Sara C. Aminzadeh, Note, *A Moral Imperative: The Human Rights Implications of Climate Change*, 30 *Hastings Int'l & Comp. L. Rev.* 231 (2007).

¹⁵⁸ Convention Concerning the Protection of the World Cultural and Natural Heritage, art. 8, signed November 23, 1972, entered into force December 17, 1975, 27 U.S.T. 37.

¹⁵⁹ *Id.* at art.11, par. 4.

¹⁶⁰ *Id.* at art. 4.

¹⁶¹ World Heritage Comm. Decision 30 COM 7.1, adopted July 10, 2006, available at <http://law.lclark.edu/org/iehp/glacierpetition.html>.

¹⁶² Filed January 29, 2009, by Earthjustice and the Australian Climate Change Program.

¹⁶³ Petition at 1.

elevation sites are the World Heritage Sites most vulnerable to climate change, and lists 15 sites (including those in the preceding paragraph) that should be placed on the danger list.¹⁶⁴ Waterton-Glacier remains the only site mentioned in a petition for placement on the List of World Heritage in Danger that is in the United States.

Thus far, no international law claims have been brought by low-lying nations likely to be inundated by the sea level rise predicted to accompany climate change. A recent scientific report asserts that sea level rise is likely to be larger than previously predicted, affecting as many as 600 million people on low-lying Pacific islands and southeast Asia delta areas.¹⁶⁵

X. Comments

Gauging the prospects of the pending climate change lawsuits is a precarious venture; for many of the suits, there is little precedent. It is clear, however, that success in the conventional sense—obtaining a judgment for the environmental plaintiff—is not the only objective of many of these suits. Some of the climate change litigation almost certainly has a long-range strategic purpose—to keep climate change on the political front burner and make it difficult for government and GHG emitters to ignore the problem.

In the conventional sense of the term, plaintiffs' successes have been rare in cases seeking relief *directly from GHG emitters*. A court may be reluctant to impose expensive measures to address a global problem on a defendant that is a proportionately minor contributor (which almost all defendants are, given the vast number of GHG emitters), using statutory provisions or common law principles that were not formulated with global problems in mind, against a backdrop of scientific uncertainty as to the precise consequences (if not the general cause) of climate change. By contrast, the environmental side recently has scored major wins where *governmental* remedies were sought. In a string of 2007 decisions under the Clean Air Act,¹⁶⁶ Energy Policy and Conservation Act of 1975,¹⁶⁷ foreign policy authority of the United States,¹⁶⁸ and NEPA,¹⁶⁹ courts have shown increased willingness to authorize or require government consideration of climate change.

As this report shows, standing has been a persistent issue for environmental plaintiffs, though of late the tide appears to be shifting in their favor. And at least for states, the Supreme Court decision in *Massachusetts v. EPA* is likely to work a sea change in improving plaintiffs' prospects. As noted earlier, the big question is the extent to which the Supreme Court decision finding standing will be seen by the lower courts to generalize to nonstate plaintiffs, other statutory and

¹⁶⁴ Further, the petition requests that advisory bodies to the World Heritage Convention, State Parties, and site managers undertake studies on the sources of black carbon that are polluting high latitude and high altitude sites and recommend measures to reduce such emissions. It then requests the World Heritage Committee to develop a program of corrective measures.

¹⁶⁵ See, e.g., J. Macabrey, Researchers Warn That Sea Levels Will Rise Much Faster Than Expected, *ClimateWire* (E&E Publishing March 11, 2009), available at eenews.net/climatewire/2009/03/11/1.

¹⁶⁶ *Massachusetts v. EPA*, 549 U.S. 497 (2007) (see Section I of this report).

¹⁶⁷ *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F. Supp. 2d 295 (D. Vt. 2007), and *Central Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F. Supp. 2d 1151 (E.D. Cal. 2007), both described in section VI of this report; *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508 (9th Cir. 2007), described in sections III and IV of this report.

¹⁶⁸ *Green Mountain*, *supra* note 167.

¹⁶⁹ *Center for Biological Diversity*, *supra* note 167.

common law contexts, and injuries (as from weather events) not as clearly attributable to climate change as Massachusetts's loss of shore land.

Causation is not only a component of the threshold standing test but a component of the plaintiff's case on the merits. Several writers have identified proof of causation as a key obstacle to a tort action seeking relief from climate change injury.¹⁷⁰ And at the remedy stage, allocation of damages among specific defendants will likely present both factual and legal challenges.

In either the standing or case-in-chief contexts, the climate change issues in private-remedy actions reprise an intractable problem in environmental law: imposing liability for harms that are remote in time and place from the pollution sought to be abated, particularly where the pollution comes from multiple sources.¹⁷¹ Lawmakers of yesteryear encountered this same redistributive conundrum in tackling the problem of acid rain, where pollution cause and effect are separated by hundreds of miles and weeks or months. Imposing liability for harm from exposure to toxic chemicals is of the same ilk: exposure to contamination from multiple sources may result in ill effects manifested only a decade or two later.

Perhaps because of these hurdles under existing law, and the resistance of the George W. Bush Administration to regulatory approaches to climate change, new directions have been explored.¹⁷² Within the United States, several states have adopted their own GHG emission controls, citing, among other things, inaction at the federal level.¹⁷³ Twenty-three states have joined one of the three regional GHG reduction initiatives (Western Climate Initiative, Midwestern Regional Greenhouse Gas Reduction Accord, and in the northeastern states, Regional Greenhouse Gas Initiative).¹⁷⁴ Some states have explored the idea of emissions trading with Europe.¹⁷⁵ At least 40 states and multiple Canadian provinces have partnered to form a Climate Registry to support voluntary and mandatory schemes for reporting GHG emissions in those states and provinces. California and the United Kingdom signed an agreement on July 31, 2006, committing both parties to implement market-based mechanisms, to share results from studies to quantify the economic impacts of climate change, collaborate on research, etc.¹⁷⁶ Also internationally, this report noted the unsuccessful Inuit petition filed with the Inter-American Commission on Human Rights and the pending petitions before the World Heritage Committee. Reportedly, the low-lying Pacific nation of Tuvalu threatened to sue the United States and Australia four years ago in the

¹⁷⁰ Myles R. Allen and Richard Lord, *The Blame Game: Who Will Pay for the Damaging Consequences of Climate Change?*, 432 *Nature* 551 (December 2004); David A. Grossman, *Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 *Colum. J. Envtl. L.* 1 (2003); Eduardo M. Penalver, *Acts of God or Toxic Torts? Applying Tort Principles to the Problem of Climate Change*, 38 *Nat. Res. J.* 563, 569 (1998).

¹⁷¹ See generally Richard J. Lazarus, *THE MAKING OF ENVIRONMENTAL LAW* ch. 1 (2004).

¹⁷² See, e.g., Kristin Marburg, *Combating the Impacts of Global Warming: A Novel Legal Strategy*, 2001 *Colo. J. Int'l L. & Pol'y* 171 (2001).

¹⁷³ See, e.g., California's A.B. 32, the Global Warming Solutions Act of 2006, *supra* note 132. See generally CRS Report RL33812, *Climate Change: Action by States to Address Greenhouse Gas Emissions*, by Jonathan L. Ramseur.

¹⁷⁴ For example, RGGI is an initiative involving 10 northeastern states to stabilize CO₂ emissions from power plants at 188 million tons per year from 2009-2014 and then to reduce emissions by 2.5% per year over the next four years.

¹⁷⁵ Congressional Green Sheets Newsroom, December 17, 2004. The same source reports that Rep. Joe Barton (R-Texas), then-chairman of the House Energy and Commerce Committee, said that any international compact involving state governments would have to be approved by Congress and that "we would tend to look at it with a lot of skepticism." Kenneth Colburn, who is helping to coordinate the states' effort, was said to question the need for federal authorization, on the theory that any transatlantic trades would be commercial transactions, not government-to-government.

¹⁷⁶ United Kingdom and California Announcement on Climate Change and Clean Energy Collaboration.

ICJ, but held off for unspecified reasons.¹⁷⁷ In the corporate world, use of the shareholder proposal process and SEC disclosure requirements have been suggested as ways of forcing the issue.¹⁷⁸

New categories of litigation also may emerge. For example, the head of the California Air Resources Board has predicted a court challenge to her state's cap-and-trade system to regulate GHGs (expected to take effect in 2012). Such a challenge, she said, might argue that the cap-and-trade system's fee on GHG emissions imposes a new tax, which requires a 2/3 vote of the state legislature. As another example, rising sea levels may prompt lawsuits seeking a judicial blessing for the landward migration of the public's beach access rights.¹⁷⁹ And of course, any climate change legislation enacted by Congress is likely to spawn its own generation of litigation.¹⁸⁰

Whether these new paths will yield results, only time will tell. It is clear, however, that if there is to be a government response to climate change at all, a solution from the political branches is more likely to be comprehensive and fully reflective of societal priorities than the typically narrowly targeted results of litigation. Many proponents of litigation or unilateral action by the states freely concede that such initiatives are make-do efforts that, while making a small contribution to mitigating climate change, are also aimed at prodding the national government to act.

¹⁷⁷ See <http://www.tuvaluislands.com>. Tuvalu alleged that Australia is the biggest per capita producer of GHGs, and that the United States is the biggest single emitter. See also Aurelie Lopez, *The Protection of Environmentally Displaced Persons in International Law*, 37 *Env'tl. L.* 365, 372-373 (2007). Residents of the Alaskan village of Shishmaref on the Bering Strait, who are now being relocated, are apparently the first American climate change refugees.

¹⁷⁸ See, e.g., Sung Ho (Danny) Choi, Note, *It's Getting Hot in Here: The SEC's Regulation of Climate Change Shareholder Proposals Under the Ordinary Business Exception*, 17 *Duke Env'tl. L. & Pol'y Forum* 165 (2006); California Public Employees' Retirement System et al., *Petition for interpretive guidance on climate change disclosure*, SEC No. 4-547 (submitted September 18, 2007); Free Enterprise Action Fund, *Petition for interpretive guidance under the Securities Act of 1933 that would require registrants to disclose to shareholders the business risks of laws and regulations intended to address global warming concerns*, SEC No. 4-549 (submitted October 22, 2007).

¹⁷⁹ See, e.g., *Severance v. Patterson*, 485 F. Supp. 2d 793, 804 (S.D. Tex. 2007) (finding no property rights taking based on state's migrating easement allowing public access to the dry beach between mean high tide line and natural vegetation line, notwithstanding that these lines move).

¹⁸⁰ The just-released discussion draft of the Waxman-Markey energy/climate-change bill, titled the American Clean Energy and Security Act of 2009, expands the existing citizen suit provision in the Clean Air Act to facilitate suits based on climate change (currently, draft bill section 336). The amendments are geared toward lowering the barriers to standing often encountered by climate change plaintiffs—the barriers that were lowered in *Massachusetts v. EPA* in the special circumstance where the citizen plaintiff is a state. Thus, the draft provision states that persons entitled to file citizen suits include those who suffer, or reasonably expect to suffer, “the incremental exacerbation of any effect or risk that is associated with a small incremental emission of any air pollutant (including any greenhouse gas ...), whether or not the effect or risk is widely shared.”

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