Volume 38 Spring 2008 Number 3

#### **ARTICLE**

CARBON CAPTURE AND STORAGE PROJECT DEVELOPMENT:

AN OVERVIEW OF PROPERTY RIGHTS ACQUISITION, PERMITTING, AND

OPERATIONAL LIABILITY ISSUES

Thomas A. Campbell, Robert A. James, and Julie Hutchings

# NOTE

Massachusetts v. EPA: Standing Up for States' Rights
in the Battle over Climate Change
Cleve Burke

#### RECENT DEVELOPMENTS

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WATER RIGHTS — Robin Smith, Kelly Davis

CASENOTES: FEDERAL — Deborah Clarke Trejo, David DeLaCerda

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PUBLICATIONS — Timothy Wilkins, Julie Urice

#### STATE BAR SECTION NEWS

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The purpose of the Texas Environmental Law Journal is to provide the members of the Environmental and Natural Resources Law Section of the State Bar of Texas and the public with legal articles and recent development columns on relevant environmental and natural resources law issues. The Journal also provides news of Section activities and other events pertaining to this area of law. The Journal is the leading source for articles on Texas environmental and natural resources law.

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Due to the production demands of instituting a new format for the *Journal* and switching publishers, we did not publish Issue No. 4 for Volume 37 (Summer 2007).

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# FROM THE EDITORS

Dear Readers,

Welcome to Issue Number Three of the 2007-2008 publication year. Yes, our actual publication has spilled over into 2009 for this issue and will for the next issue. Our goal is to "catch up" during Volume 39.

Thomas A. Campbell, Robert A. James, and Julie Hutchings co-wrote the lead article for this issue. Messrs. Campbell and James are Partners and Ms. Hutchings is an Associate in the Pillsbury law firm. As humans attempt to move away from emitting gases that contribute to global climate change and towards energy production that captures the gases or does not produce them, one immediate strategy is the capture and storage of carbon dioxide. Because humans cannot simply turn a switch to non-hydrocarbon and non-carbon fuel sources, they will remain a part of the world's energy sources for several more years. Therefore, with momentum from industry and environmental and non-governmental organizations and facing concerns of national security, one effort is to "decarbonize" fuels like coal and oil by reducing or capturing their inherent carbon dioxide. This article discusses carbon capture and storage projects, providing an overview of property rights acquisition, permitting, and operational liability issues.

Cleve Burke wrote this issue's student note. Mr. Burke graduated in May 2008 from the University of Texas School of Law and is working as a Clerk for Judge Will L. Garwood of the U.S. Fifth Circuit Court in Austin, Texas. In his note, Mr. Burke discusses the effect that the United States Supreme Court's decision in Massachusetts v. EPA has had on standing doctrine in federal jurisprudence. Mr. Burke hopes that the Massachusetts v. EPA decision will allow plaintiffs to require federal agency compliance with Congressional mandates, thereby making our country a cleaner and safer nation in which to live.

As always, we hope that you enjoy the issue and that it provides you with educational insight.

Jimmy Alan Hall Clint Hansen

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# CARBON CAPTURE AND STORAGE PROJECT DEVELOPMENT: AN OVERVIEW OF PROPERTY RIGHTS ACQUISITION, PERMITTING, AND OPERATIONAL LIABILITY ISSUES

#### BY THOMAS A. CAMPBELL, ROBERT A. JAMES, AND JULIE HUTCHINGS

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Great minds are responding to the global call to reduce carbon emissions. Ideas include increasing the use of renewable energy sources, putting greater focus on reducing demand, and developing innovative technologies to enhance the efficiency of energy usage. However, one fact is unavoidable. Hydrocarbon and carbon fuel sources will remain a part of the world's energy strategy for years to come.

Spurred on by industry, environmental non-governmental organizations and concerns of national security, the race is on to "decarbonize" fuels like coal and oil by reducing or capturing their inherent carbon dioxide (CO<sub>2</sub>). The term carbon sequestration refers to a variety of mechanisms used to reduce the total atmospheric concentration of carbon dioxide or other greenhouse gases. Sequestration can take a number of forms, including reforestation to increase CO<sub>2</sub> consumption, storage of CO<sub>2</sub> in various forms in the ocean, and use of CO<sub>2</sub> in industrial applications.

Another emerging sequestration method with considerable promise is geological carbon capture and storage (CCS).<sup>3</sup> In CCS, the CO<sub>2</sub> is captured at the point the carbon fuel is used – either after combustion (in the exhaust stack) or before combustion (when fuels are gasified, separating CO<sub>2</sub> from hydrogen or other fuels or feedstocks).<sup>4</sup> The captured CO<sub>2</sub> is transported and injected into deep geological voids such as depleted oil and gas reservoirs, coal bed methane reservoirs, or saline formations.<sup>5</sup> Considerable experience with injecting CO<sub>2</sub> for enhanced oil recovery (EOR) and with natural gas storage confirms the utility of this approach.<sup>6</sup>

Most of the current discussion regarding sequestration centers on the economic and technical aspects of carbon capture, the physical capacity of geological reservoirs, and the legal and regulatory benefits that can be derived (and the penalties that can be avoided) from the resulting reductions in carbon emissions. In contrast, this article discusses the legal issues relating to the practical aspects of developing and permitting a CCS project. To that end, this article covers potential challenges and solutions on such topics as the acquisition of property rights; permitting at both the federal and the state levels; and identification, reduction and transfer of operational and post-operational liabilities. The authors have sought to cover existing principles and anticipated trends with respect to CCS throughout the United States, in general, and with particular reference to the State of Texas.

# I. PROPERTY RIGHTS ACQUISITION

#### A. GENERAL UNITED STATES PRINCIPLES

CCS projects consist of the capture and transportation of CO<sub>2</sub> and the injection of CO<sub>2</sub> into subsurface formations—either into wholly or partially depleted oil, gas, or coal bed methane reservoirs, or into saline formations.<sup>7</sup> In situations in which the real

U.S. Dep't of Energy, Fossil Energy, Carbon Sequestration R&D Overview, http://www.fossil.energy.gov/sequestration/overview.html (last visited Feb. 26, 2008).

See U.S. Dep't of Energy, Fossil Energy, Terrestrial Sequestration Research, http://www.fossil.energy.gov/sequestration/terrestrial/index.html (last visited Feb. 26, 2008); see also U.S. Dep't of Energy, Fossil Energy, Geologic Sequestration Research, http://www.fossil.energy.gov/sequestration/geologic/index.html (last visited Feb. 26, 2008); see also U.S. Dep't of Energy, Fossil Energy, Novel Carbon Sequestration Concepts, http://www.fossil.energy.gov/sequestration/novelconcepts/index.html (last visited Feb. 26, 2008).

<sup>3</sup> U.S. Dep't of Energy, Geologic Sequestration Research, *supra* note 2.

<sup>4</sup> See id.

<sup>5</sup> Id.

<sup>6</sup> See id.

<sup>7</sup> Id.

property rights have been divided—with mineral and water rights to the potential reservoir or saline formation being held by persons different than the holders of surface rights or other residual or future interests in the land—the question arises as to which set of owners must convey rights or otherwise consent to the storage of the injected materials. Regardless, surface usage rights are separately needed for the capture, transportation, and injection activities.<sup>8</sup>

The ownership of subsurface formation storage rights in the United States is governed by state laws and is not uniform. These laws do not address the long-term storage of CO<sub>2</sub> specifically, nor does case law exist regarding storage of CO<sub>2</sub> in particular.

The Interstate Oil and Gas Compact Commission (IOGCC) produced a model statute for CO<sub>2</sub> geological storage in late 2007.<sup>10</sup> The model statute was based on IOGCC's conclusion that states and provinces are the most logical and experienced regulators given their experience and expertise in the governance of oil and natural gas production and natural gas storage.<sup>11</sup>

However, some amount of tension exists between the federal and state agencies regarding regulation of potential sequestration projects. Near the end of 2007, the Energy Independence and Security Act was enacted vesting authority for regulating CO<sub>2</sub> injection wells with the Environmental Protection Agency (EPA) and authority over CCS projects on federal lands with the Bureau of Land Management (BLM), within the Department of Interior (DOI).<sup>12</sup> Since both injection well authority and federal lands authority will be important facets of sequestration project development, the new federal law and the state law developments have the potential to create practical conflicts for operators in the future as they seek to permit new projects. Efforts are currently underway in Congress to address state and federal collaboration on this issue and on climate change in general. The eventual resolution may require the development of an interagency task force.<sup>13</sup>

The IOGCC states that a "regulatory program that manages storage . . . should include clear rules about how [ownership interest in subsurface pore space] will be

<sup>8</sup> Interstate Oil and Gas Compact Comm'n, Task Force on Carbon Capture and Geologic Storage, Storage of Carbon Dioxide in Geologic Structures: A Legal and Regulatory Guide for States and Provinces 15 (2007) (on file with authors) [hereinafter IOGCC Regulatory Guide for States].

<sup>9</sup> See Interstate Oil and Gas Compact Comm'n, CO2 Storage: A Legal and Regulatory Guide for States (2007), http://iogcc.myshopify.com/ (stating the need for a model law regarding CO2 storage); see also IOGCC Regulatory Guide for States, supra note 8, at 1.

<sup>10</sup> IOGCC REGULATORY GUIDE FOR STATES, supra note 8, at 1.

<sup>11</sup> Id. at 13.

<sup>12</sup> Energy Independence and Security Act of 2007, PL 110-140, 121 Stat 1492.

In fact, the Energy Independence and Security Act began to lay the framework for this type of collaboration at the federal level by requiring agencies including the Department of Energy, the DOI, and the EPA to work together with respect to assessments of sequestration capacity and developing a framework for sequestration activities occurring on public lands. *Id.* at Sec. 711 and 714. *See also*, "Who Should Take the Lead on Regulating CCS?", Environmental Science & Technology Online News, http://pubs.acs.org/subscribe/journals/esthag-w/2007/dec/policy/cc\_sequestration.html (discussing Senator John Kerry's proposed bill requiring the development of an interagency task force to develop regulations pertaining to carbon sequestration technologies and activities).

recognized and protected."<sup>14</sup> The IOGCC report concludes that a statute regarding geologic storage (GS) "would best serve the public by clearly declaring that GS is an important activity for the public interest, clearly identifying the surface owner as the person with the right to lease pore space for storage, while protecting other stakeholders from potential damage attributable to sequestration activities."<sup>15</sup>

However, until specific laws for CCS are developed, analysis of the ownership of underground storage rights for long-term storage of CO<sub>2</sub> will depend on current state statutes and on case law in analogous and well-developed commercial applications such as natural gas storage, EOR, and acid gas and hazardous waste injection. <sup>16</sup>

Under current state laws, the ownership of underground storage rights depends on which of two types of geologic formations is proposed as the storage location. <sup>17</sup> The ownership of underground storage rights in mineral-bearing formations, such as depleted oil and gas reservoirs or coal bed methane formations, is generally determined by a state's laws regarding oil, gas, and mineral rights. <sup>18</sup> The ownership of the same rights in saline formations is generally determined by a state's laws regarding water rights. <sup>19</sup>

#### 1. MINERAL-BEARING FORMATIONS

The majority of states recognize that legal title to mineral formations resides with the surface interest holder unless otherwise agreed.<sup>20</sup> This standard is referred to as the "American Rule," in contrast to the "English Rule," which a minority of states and the courts in the United Kingdom and Canada follow.<sup>21</sup> The English Rule states that the mineral interest holder is the owner of rights in the mineral formation separate and apart from its rights to remove the minerals.<sup>22</sup>

Although the American Rule may vest title to the formation in the surface interest holder, a party that desires to use the formation for underground storage must recognize that mineral interest holders may continue to have competing property interests in instances in which the formation has arguably not been depleted of minerals.<sup>23</sup> In fact, a mineral formation may never be fully physically depleted of minerals, even if

<sup>14</sup> IOGCC REGULATORY GUIDE FOR STATES, supra note 8, at 22.

<sup>15</sup> Id.

<sup>16</sup> Jeffrey W. Moore, The Potential Law of On-Shore Geologic Sequestration of CO2 Captured From Coal-Fired Power Plants, 28 ENERGY L. J. 443, 447–48 (2007).

<sup>17</sup> Mark A. de Figueiredo, Property Interests and Liability of Geologic Carbon Dioxide Storage: A Special Report to the MIT Carbon Sequestration Initiative 5 (2005), http://sequestration.mit.edu/pdf/deFigueiredo\_Property\_Interests.pdf; see IOGCC REGULATORY GUIDE FOR STATES, supranote 8, at 16–17.

<sup>18</sup> See de Figueiredo, supra note 17, at 5.

<sup>19</sup> Id.

<sup>20</sup> See IOGCC REGULATORY GUIDE FOR STATES, supra note 8, at 19.

<sup>21</sup> de Figueiredo, supra note 17, at 6.

de Figueiredo, supra note 17, at 6; see also Jack Lyndon, The Legal Aspects of Underground Storage of Natural Gas – Should Legislation Be Considered Before the Problem Arises?, 1 ALBERTA L. REV. 543, 545 (1961).

<sup>23</sup> See IOGCC REGULATORY GUIDE FOR STATES, supra note 8, at 19; see also de Figueiredo, supra note 17, at 7.

further extraction would be economically impractical.<sup>24</sup> If so, then regardless of the title to the formation, a mineral rights holder might be a potential plaintiff claiming nuisance, trespass, or other causes of action asserting that CO<sub>2</sub> injection and storage has interfered with its lawful use or possession of its own property interest.

When the ownership of underground storage rights has been litigated in the context of natural gas, courts have often held that conveyances or consents from mineral rights holders as well as surface rights holders are required or useful to eliminate the prospect of title or tort claims. For example, a prominent Michigan case held that the property rights and interests required to operate an underground field for storage purposes include: "(1) access to the surface, (2) the container – that is to say, that portion of the underground area within which the gas will be stored and, (3) the contents of the container (whatever native gas and oil may remain in the container)."<sup>25</sup>

In discussing rights to be acquired in connection to the use of a mineral formation for natural gas storage purposes, University of Oklahoma law professor, Eugene Kuntz, noted that "[b]ecause the cases on the subject are few in number and are not in harmony, when a subsurface stratum is acquired for storage purposes, the grant should be taken from the person having the rights to extract the particular substance to be stored, the surface owner and the owner of any other mineral rights." Kuntz further observed that "prudence also dictates that grants be secured from mineral owners of any separate strata not acquired whose rights of access might be impaired, from owners of various surface interests, and from owners of easements or other similar interests whose rights might be impaired in some way." If the applicable reservoir has been unitized or is subject to unitization, further consideration should be given to seeking rights from the operator of the unit or the unit working interest owners themselves. East of the control of the unit or the unit working interest owners themselves.

#### 2. SALINE FORMATIONS

The majority of states recognize that a surface interest owner has the right to make use of a saline formation situated below its property.<sup>29</sup> However, a party that desires to operate a saline formation as a storage facility must also consider the ownership of the water in the saline formation and the right to extract and use that water, which may be subject to one of several property rights rules.<sup>30</sup> The five major rules that are applicable depend on the state in question and are commonly referred to as "absolute dominion," "reasonable use," "correlative rights," "the Restatement rule," and the "prior appropriation rule."<sup>31</sup>

Orpha A. Merrill, Note and Comments, Oil and Gas: Substratum Storage Problems, 7 OKLA. L. REV. 225, 227 (1954); de Figueiredo, supra note 17, at 8.

<sup>25</sup> Mich. Consol. Gas Co. v. Muzeck, 154 N.W.2d 448, 450 (Mich. 1967).

<sup>26 1</sup> Eugene Kuntz, A Treatise on The Law of Oil and Gas § 2.6(c) (1987).

<sup>27</sup> Id.

See de Figueiredo, *supra* note 17, at 20 (discussing types of geophysical subsurface trespass in relation to unitized oil fields).

WILLIAM R. WALKER & WILLIAM E. COX, DEEP WELL INJECTION OF INDUSTRIAL WASTES: GOVERN-MENT CONTROLS AND LEGAL CONSTRAINTS 131 (1976); de Figueiredo, *supra* note 17, at 9.

<sup>30</sup> de Figueiredo, supra note 17, at 9.

<sup>31</sup> Id.

At the risk of oversimplification, the rules with respect to saline formations may be summarized for CCS purposes as follows. Under "absolute dominion," the surface interest owner owns the water beneath its property and has the absolute right to extract or otherwise use that groundwater without any liability for damage to an adjoining owner. The "reasonable use" rule holds that the use of groundwater is unrestricted so long as it is reasonable and beneficial and takes place on the land overlying the aquifer. Under the "correlative rights" rule, surface owners may use groundwater in proportion to their land ownership. Under the "Restatement rule," a surface rights owner may use groundwater in a reasonable manner, but is not restricted as to where it may use that water. Finally, the "prior appropriation rule" gives whoever is "first in time" the first right to use the water.

Depending on the rule used in the particular state, it may be prudent to obtain conveyances or consents not only from the surface rights owner and water rights owner, but also from any current appropriator of the water and any surface rights owner capable of accessing the saline formation.

# 3. SUMMARY OF RIGHTS TO BE ACQUIRED FOR GEOLOGICAL STORAGE OF CO.

While the property rules described above have not yet been applied in the context of long-term CO<sub>2</sub> storage, these rules are likely to apply until such time as new rules are adopted.<sup>37</sup> Therefore, at present, a party desiring to obtain underground storage rights for long-term CO<sub>2</sub> storage with respect to either mineral or saline formations must not only acquire the rights of the owner of the formation itself, but should also consider the rights of any other mineral or water interest holder.

Case law in analogous situations such as natural gas storage and hazardous waste injection "suggests that both surface and mineral owners will have a legitimate claim to subsurface strata used for [geological CO<sub>2</sub> storage]." Depending on the particular circumstances of the storage operation, adjacent surface, mineral, and water interest holders may also have interests that are impacted and thus, the consent of such persons may also be desired to avoid tort claims. <sup>39</sup>

A final consideration is that the duration of mineral rights is frequently limited to such time as the minerals are producing in paying quantities. However, CO<sub>2</sub> sequestration projects typically proceed only once a site has ceased producing in paying quantities. Consequently, the grant of storage rights by a mineral rights holder may not be of

<sup>32</sup> Bristor v. Cheatham, 255 P.2d 173, 178 (Ariz. 1953); de Figueiredo, supra note 17, at 9.

<sup>33</sup> de Figueiredo, supra note 17, at 10.

<sup>34</sup> Id. at 10; Earl Finbar Murphy, The Recurring State Judicial Task of Choosing Rule for Groundwater Law: How Occult Still? 66 NEB. L. REV. 120, 134 (1987).

<sup>35</sup> de Figueiredo, supra note 17, at 11.

<sup>36</sup> Id.

<sup>37</sup> Id. at 15.

<sup>38</sup> Elizabeth J. Wilson & Mark A. de Figueiredo, Geologic CO<sub>2</sub> Sequestration: An Analysis of Subsurface Property Law, 36 Envtl. L. Rep. 10114, 10123 (2006), available at http://web.mit.edu/defig/www/publications.html.

<sup>39</sup> Id.

secure duration. For all of the reasons discussed above, consents would ordinarily be sought from both the mineral and surface estate holders.

#### **B. TEXAS PRINCIPLES**

Texas follows the American Rule with respect to the determination of the ownership rights of the underground storage rights in existing mineral formations.<sup>40</sup> Ownership of land in fee simple is deemed to include not only the surface and mineral estates, but also the underlying earth and reservoir storage space.<sup>41</sup> Mineral interests are considered part of the realty and are subject to ownership, severance, conveyance, and lease, just as are surface estates.<sup>42</sup> If the mineral and surface interests have been severed, the mineral estate is considered dominant over the surface estate. However, one case has held that the surface estate continues to own the storage rights after severance due to the doctrine of absolute dominion.<sup>43</sup> Another Texas case held that the mineral rights owner who *created* salt cavern space had exclusive rights to the storage, but such manmade space would not be the preferred storage location for CCS projects.<sup>44</sup>

Texas applies the absolute dominion rule with respect to groundwater, meaning that a fee simple titleholder owns everything above, on, and below the surface. This rule is derived from common law and the seminal Texas case of *Houston & Texas Central Railway Co. v. East* held that the following doctrine applied in Texas: "the person who owns the surface may dig therein and apply all that is there found to his own purposes, at his free will and pleasure; and that if, in the exercise of such right, he intercepts or drains off the water collected from the underground springs in his neighbor's well, this inconvenience to his neighbor falls within the description of damnum absque injuria, which cannot become the ground of an action." Courts have since refined this theory to explicitly require that the use be non-wasteful, but have otherwise left this doctrine intact. It is possible, however, for water rights to be given to a party by the landowner in the event of an express contract between the parties for the same.

It should be recognized that, in addition to the common law principles and century's worth of case law described above, a complex and evolving regulatory scheme also governs the rights to and use of groundwater in Texas. Consequently, any CCS project

<sup>40</sup> Humble Oil & Refining Co. v. West, 508 S.W.2d 812 (Tex. 1974).

<sup>41</sup> Id. at 815.

<sup>42</sup> Stephens Cty. v. Mid-Kansas Oil & Gas Co., 113 Tex. 160, 254 S.W. 290 (Tex. 1923).

<sup>43</sup> Emeny v. United States, 412 F.2d 1319, 1323 (Ct. Cl. 1969).

<sup>44</sup> Id. at 1319. For a recent overview of the question of who owns the storage space where CO<sub>2</sub> will be stored and how to acquire storage rights, see Bill Jeffery, "What 'Carbon Capture and Storage' Means for Oil and Gas Attorneys", Texas State Bar Oil, Gas & Energy Resources Law Journal, vol. 32, no. 4, at 79 (2008).

Fain v. Great Spring Waters of America, Inc., 973 S.W.2d 327, 328 (Tex. App. – Tyler 1998, pet. denied) (citing Houston & Tex. Cent. Ry. Co. v. East, 98 Tex. 146, 81 S.W. 279 (Tex. 1904)).

<sup>46</sup> Houston & Tex. Cent. Ry. Co. v. East, 98 Tex. 146, 81 S.W. 279 (Tex. 1904) (citing Acton v. Blundell, 12 Mees. & W. 324).

<sup>47</sup> Pecos Cty. Water Control and Imp. Dist. V. Williams, 271 S.W.2d 503, 505 (Tex. Civ. App. – El Paso 1954, writ ref'd n.r.e.).

<sup>48</sup> Texas Co. v. Giddings, 148 S.W. 1142 (Tex. Civ. App. - Dallas 1912, no writ).

that may impact water quality or otherwise impact or interfere with groundwater will be subject to regulatory oversight and (potentially) a separate permitting regime to address any potential impact on water quality.

Thus, Texas applies rules that would tend to vest legal title to the geologic formation itself in the surface rights owner. However, the interests of the mineral or water rights holder should be considered in determining what consents would be required for geological CCS and it should be recognized that separate permitting issues may come in to play with respect to interference with groundwater.

#### II. PERMITTING REQUIREMENTS

#### A. CURRENT INJECTION WELL REGULATORY STATUS

Permitting for geological CCS projects can generally be divided into four categories: capture, transport, injection, and storage.<sup>49</sup> The specific permit requirements will depend on the project. Permit requirements associated with capture and transport of carbon would perhaps include air pollution permits for the processes by which carbon is generated and pipeline permits for transportation. Some persons argue that even these requirements may have some intricacies particular to carbon dioxide.<sup>50</sup> Injection and storage of carbon present entirely novel permitting questions.

For the past 20 years, the EPA's underground injection control program has categorized UIC wells into five different classes, each with its own set of qualifications, restrictions and obligations. Class I wells are used for injection of hazardous wastes, industrial non-hazardous liquids, and municipal wastewater; Class II wells are used for injection in oil and gas operations, including injection for EOR; Class III wells are used for *in situ* or "solution" mining for minerals; Class IV wells are used for groundwater remediation projects; and Class V is a general category for "experimental" or "other" non-hazardous injection wells. Importantly, under the Safe Drinking Water Act (SDWA), individual states and tribes can apply to the EPA to obtain primary authority to administer the UIC program; and to be granted such primacy, the state program must be *at least* as stringent as the federal requirements.<sup>51</sup>

Until now, the resolution of how wells for injection of CO<sub>2</sub> for geologic sequestration would be classified under the SDWA was highly uncertain. CO<sub>2</sub> injection wells with EOR applications were presumed to fall within Class II, while other wells were thought to fit nowhere but the catch-all Class V. Indeed, interim guidance that the EPA issued in March 2007 indicated that pilot-stage CO<sub>2</sub> injection wells should be regulated under Class V. At the same time, states have been making their own determinations and developing their own regulations on the subject.<sup>52</sup> Now, under

<sup>49</sup> See generally The Midwest Regional Carbon Sequestration P'ship, Phase I Final Report (2005), http://216.109.210.162/userdata/Phase%20I%20Report/MRCSP\_Phase\_I\_Final. pdf.

<sup>50</sup> Id. at 198-999. See also Moore, supra note 16, at 458-459 and Phillip M. Marston and Patricia A. Moore, From EOR to CCS: The Evolving Legal and Regulatory Framework for Carbon Capture and Storage, 29 ENERGY L. J. 421 (2008).

<sup>51</sup> See 42 U.S.C. § 300h-4 (c)(2).

As recently as June 30, 2008, the Washington State Department of Ecology promulgated UIC rules intended to fit CO<sub>2</sub> injection wells within Class V.

the proposed rule, the EPA would establish a new category of UIC wells, Class VI wells, which category is specifically for the injection of CO<sub>2</sub> for CCS. In issuing this proposed rule, the EPA has taken an important first step toward resolving the current uncertainty over the regulation of underground injection wells used for CCS.

#### B. PROPOSED WELL REGULATIONS

Given the early stage of development of CCS projects, the permitting requirements have not been well-defined. The UIC program modifications that are contained in the proposed regulations are intended to address some of the unique challenges presented by the injection of CO<sub>2</sub> for long-term geologic sequestration.<sup>53</sup> These challenges include: the relative buoyancy of CO<sub>2</sub>, its corrosivity when present with water, potential impurities that may be entrained in the captured CO<sub>2</sub>, the mobility of CO<sub>2</sub> in underground formations, and the very large injection volumes that are anticipated once CCS technology is fully deployed. The main elements of the proposed regulations are summarized below.

#### 1. SCOPE OF THE RULE

As indicated, the proposed regulations would establish a new class of UIC wells – Class VI wells – that are used for the "long-term containment of a gaseous, liquid or supercritical carbon dioxide stream in subsurface geologic formations." The regulations would specify that the owner or operator of a proposed Class VI well must apply for and obtain a permit before operating the well.

#### 2. CONTENT OF PERMIT APPLICATIONS

The rule would require submission of extensive information regarding a proposed injection well as part of the Class VI permit application. In all, the applicant would have to address 25 separate categories of information including maps, a site specific "Area of Review" (AoR) determination, a delineation of the potentially affected underground source of drinking water (USDW), testing results, and several distinct operating plans and procedures—all of which the Director must review and approve.<sup>54</sup> Key components of a permit application include the following:

• Corrective Action Plan. As part of the permit application, the applicant would be required to submit a Corrective Action Plan that identifies all wells within the AoR (a region surrounding the sequestration project, defined through computer modeling) and that specifies actions to be taken to protect the USDW from the migration of CO<sub>2</sub> and formation fluids. If site monitoring indicates an endangerment to the USDW, the responsible agency must be notified and injection operations must cease. In addition, the corrective action requirements would apply to all known wells penetrating the injection zone of the proposed Class VI well, and measures would be required to ensure that

The EPA had the proposed rule published in the July 25, 2008 Federal Register. 73 Fed. Reg. 43,492. The EPA held hearings on September 30 and October 2, 2008 to receive oral comments on the rule and written comments were to be submitted no later than November 24, 2008.

The regulatory authority is referred to as "the Director" in the regulations because these wells may be regulated by the EPA or an authorized state agency.

- any substandard wells in the AoR do not threaten any existing USDWs.
- Emergency and Remedial Response Plan. The permit applicant must also submit an Emergency and Remedial Response Plan that identifies the actions that will be taken to address any movement of injection or formation fluids that may cause an endangerment to an USDW during all phases of the life of the well. In addition, if the owner or operator obtains evidence that the injected CO<sub>2</sub> stream and associated pressure front may cause an endangerment to an USDW, the owner or operator must immediately cease injection, provide a 24-hour notice to the Director and implement the Emergency and Remedial Response plan.
- Financial Responsibility. Under proposed Section 146.85, the applicant would be required to demonstrate and maintain "Financial Responsibility" for corrective action, well plugging, post-injection site care, and the costs of emergency and remedial response. While Financial Responsibility requirements have been a long-time component of the EPA's RCRA hazardous waste management program, under the proposed Class VI UIC program this concept would be applied to the management of something other than a regulated hazardous waste. The cost estimates that make up the Financial Responsibility requirement would be site-specific; and the EPA indicates that further guidance on financial surety requirements will be forthcoming.

#### 3. CLOSURE PLAN & LONG TERM MONITORING

Under the proposed regulations, the Class VI permit holder would be required to prepare and implement a post-injection site care and site closure plan, which would define post-injection monitoring locations, monitoring methods, and proposed monitoring frequency. The proposed plan would have to be included as part of permit application.

The proposed regulations would require the sequestration site to be monitored following cessation of operations, for a presumed period of 50 years, until the sequestration project no longer poses any endangerment to an USDW. The Director may authorize site closure before the end of the 50-year period if the facts demonstrate that the project no longer poses a threat of endangerment to an USDW. On the other hand, according to the proposed rule's preamble discussion, the monitoring period could be extended to "100 years (or longer)" if the Director concludes this time frame is necessary. Under the proposed regulations, "Site Closure" would be defined as that point in time when the owner or operator of the Class VI well is released from the duty to provide post-injection site care.

After the site has been closed, a closure report would have to be submitted within 90 days. In addition, the owner or operator of the Class VI well would be required to record a notation in the relevant property records that would inform any future purchaser of the land that a CO<sub>2</sub> sequestration operation was conducted on the property, the volume of CO<sub>2</sub> injected, and the period of time in which the injection took place. Records generated during the site closure would have to be maintained for three years.

#### 4. TECHNICAL REQUIREMENTS

The proposed regulations also contain a number of technical requirements relating to the construction and operation of a Class VI well. These requirements include the following:

- The regulations would establish construction requirements to ensure that a Class VI well, once operational, will not facilitate the movement of fluids into or between an USDW, or into an unauthorized zone. In addition, the Director would be authorized to designate site-specific casing and cementing requirements for the well.
- The owner or operator of the well would be required to conduct appropriate surveys and tests during the drilling and construction of the well to assure conformance with the construction requirements, and to establish "baseline data" against which future measurements applicable to the operation of the well will be made. These tests will also measure the mechanical integrity of the well.
- The regulations would also specify various operating requirements. For example, the injection pressure in the well would not be permitted to cause the movement of fluids in such a way as to endanger an USDW; certain types of injection practices would be prohibited; and the loss of mechanical integrity would be grounds to shut down or terminate a CO<sub>2</sub> injection operation.
- The regulations would establish testing and monitoring requirements, as well as the requirement to prepare a testing and monitoring plan. This plan would have to include provisions for continuous monitoring and recording devices, corrosion monitoring, monitoring of the CO<sub>2</sub> plume that is created by the injection operations, and periodic monitoring of ground water quality.
- The permit holder would be subject to semi-annual and monthly reporting requirements. Semi-annual reports to the Director would have to include information relating to changes in the relevant characteristics of the injected CO<sub>2</sub> stream, and monthly average, maximum and minimum values for injection pressure, flow rate and volume, and annulus pressure, and a description of "any event" that exceeds the permit's operating parameters or triggered the activation of a shutdown device. The monthly report would have to include information on mechanical integrity tests and well work over or maintenance results.
- Finally, the regulations would establish well plugging standards and would require the preparation of a site-specific well plugging plan that includes specific information on the plugging materials and techniques that will be used.

#### 5. ISSUES FOR STAKEHOLDERS

Although the proposed rule provides a solid first step toward defining the regulatory parameters for geologic carbon sequestration, they also raise a number of important issues that stakeholders should consider as they evaluate the potential impacts of this new program. For example:

• The EPA proposes that every Class VI well must go below *any* underground drinking water source, even if thousands of feet of rock are present between the injection zone and the USDW. The preamble cites several situations in which this limitation is inappropriately strict, including most coal bed methane formations, and suggests that the Director could be given the discretion to

- waive this requirement or to exempt lower USDWs from SDWA protection. But, such discretion is not found in the proposed regulations. It is not clear if a half-mile depth is also being used as a surrogate test, though the preamble disclaims that such a depth is being used to assure the EPA that the  $\mathrm{CO}_2$  will be kept in a supercritical fluid state.
- The presumptive 50 years of site care and monitoring, and accompanying financial responsibility requirement, is considerably longer than that suggested by other agencies, such as the IOGCC, which proposed a period of 10 years. Some stakeholders are calling for either the government or private enterprise to relieve the well operator from its obligations and liabilities after the passage of some appropriate time period, either by law or by a privately funded insurance, trust, or indemnity arrangement. In the preamble, the EPA recognizes that as between the facility operator and some trust fund or indemnitor, the fund or indemnitor may shoulder this burden. But, under its SDWA authority, the EPA feels it must impose this lengthy duty on the well operator for that period.
- In addition, the proposed rule raisese a number of questions, for which the EPA has specifically solicited comments from affected stakeholders. These questions include the following:
  - Should CO<sub>2</sub> injection for EOR purposes still be regulated as traditional Class II wells, rather than in the new Class VI category;
  - Should already existing and permitted Class I-V wells be "grandfathered" under the new regulations if they are going to be converted to Class VI wells;
  - Should the EPA prohibit injection into coal seams and organic rich shales when they are above the lowermost USDW (proposal prohibits coal seems);
  - Should the new regulations prohibit the injection of hazardous waste in Class VI wells;
  - Under what circumstances may injected and/or stored CO<sub>2</sub> contain a hazardous substance, such that a release could result in CERCLA release reporting;
  - Should the Director be allowed to require owner to identify additional confining/containment zones in addition to the primary zone;
  - Should the AoR be reevaluated on periodic basis, and under what conditions, 10 year minimum reevaluation;
  - Should aquifer exemptions be given for Class VI injection, and under what conditions;
  - Should the rules have a minimum injection depth requirement, rather than requiring injection to occur below the lowermost USDW; and
  - Should financial responsibility adjustments be required as proposed?

Finally, given the complexity and significance of these issues, it will be critical to assess whether a primacy state or the EPA will enforce the new regulations and make determinations as to hazardous material content, permitted injection zones, and post-injection site care and monitoring time periods. A total of 33 states have achieved primacy for the existing UIC wells; and we can expect a similar number to seek primacy for the Class VI wells.

#### C. OTHER REGULATORY ISSUES.

Another important issue is whether the carbon being stored would be characterized as a hazardous waste under either federal or state law. Depending on the concentration and form of the carbon involved in any particular project, classification as a hazardous waste might apply.<sup>55</sup> Such a classification would affect transportation as well as injection, storage, or disposal requirements, but it should not present an insurmountable barrier to a project.

The first question in making a hazardous waste determination is whether the material is actually a "waste." It is not clear whether  $CO_2$  that is intended to be entirely sequestered (as opposed to used for EOR) will be treated as a commodity (as is the case in EOR) or as a waste. However, the U.S. Supreme Court recently held in Massachusetts v. Environmental Protection Agency that the Clean Air Act authorizes the EPA to regulate greenhouse gas emissions from motor vehicles as an "air pollutant." Some observers believe that this holding will result in the classification of  $CO_2$  as a waste, rather than as a commodity, for purposes of CCS.

If CO<sub>2</sub> is treated as a waste, the next question is whether it is classified as hazardous or non-hazardous.<sup>58</sup> Currently CO<sub>2</sub> is not listed as hazardous under EPA regulations implementing the Resource Conservation and Recovery Act (RCRA), which is the federal law governing hazardous waste.<sup>59</sup> Nor does CO<sub>2</sub> exhibit the characteristics that would render it hazardous under RCRA (*i.e.* ignitability, corrosiveness, reactivity, or toxicity).<sup>60</sup> Nevertheless, CO<sub>2</sub> could be classified as hazardous pursuant to RCRA if it is a "waste. . . which because of its quantity, concentration, or physical, chemical, or infectious characteristics may pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."<sup>61</sup> This distinction is also important for UIC classification purposes, because more stringent requirements are being imposed upon hazardous waste disposal wells.<sup>62</sup>

#### D. POTENTIAL TEXAS PERMITTING REQUIREMENTS

Although no definitive permitting requirements have yet been identified for CCS projects, this chart identifies permits that may be required for each stage of a CCS project. It also identifies additional permits that may be required depending upon the nature of the project. Should any particular CCS project be identified, a compre-

<sup>55 40</sup> C.F.R. § 261.11 (2008).

<sup>56</sup> Mass. v. Envtl. Protection Agency, 549 U.S. 497 (2007).

<sup>57</sup> See Statement of Kipp Coddington, Esq., Partner Alston & Bird LLP, before the U.S. S. Comm. on Energy and Natural Resources, at 6-7 (Apr. 16, 2007), http://energy.senate.gov/public/\_files/CoddingtonTestimony.DOC; see also Steven Milloy, Junk Science: Breath is Toxic Waste?, Fox News, Mar. 6, 2008, http://www.foxnews.com/story/0,2933,335748,00.html.

<sup>58</sup> Moore, *supra* note 16, at 471.

<sup>59 40</sup> C.F.R. § 261.31-33 (2008).

<sup>40</sup> C.F.R. §261.21-24 (2008) (provides descriptions of each characteristic; however, while pure CO<sub>2</sub> may be free of these characteristics, the characteristics may be present in sequestered CO<sub>2</sub>).

<sup>61 42</sup> U.S.C. § 6903(5)(B).

<sup>62</sup> See generally 40 C.F.R. Parts 144 and 261.

hensive permitting review should be conducted for each stage of a CCS project in the State of Texas.

# GEOLOGICAL CCS POTENTIAL PERMITTING REQUIREMENTS IN TEXAS

Permit	Agency		
Capture			
Air permits, possibly including Title V permits	Texas Commission on Environmental Quality (TCEQ)		
Transport			
Encroachment permit	City or County public works departments, reclamation districts		
Right-of-way permit	Texas General Land Office		
Permit to construct	Railroad Commission of Texas		
Authority to construct/permit to operate	Railroad Commission of Texas		
Injection			
Authority to construct/permit to operate	Texas Commission on Environmental Quality for Classes I, V		
UIC injection permit	Texas Railroad Commission for Classes II, V; Texas Commission on Environmental Quality for Classes I and V (when not regulated by the Railroad Commission of Texas)		
Hazardous waste disposal permit	Texas Commission on Environmental Quality		
Storage			
UIC injection permit	Texas Railroad Commission for Classes II, V; Texas Commission on Environmental Quality for Classes I and V (when not regulated by the Railroad Commission of Texas)		
Operation permit	Railroad Commission of Texas		

Permit	Agency			
Additional Permits, Depending on Project				
Environmental impact statement (NEPA)	Designated federal lead agency or permitting agency			
Section 404 Clean Water Act (CWA) and Section 10 Rivers and Harbors Act permits	U.S. Army Corps of Engineers Texas General Land Office, which has certain powers related to Rivers and Harbors Act			
Section 7 or Section 10 Endangered Species Act Consultation	U.S. Fish and Wildlife Service or National Marine Fisheries Service			
Confined space permit and other OSHA requirements	U.S. Occupational Safety and Health Administration			
NPDES discharge permits and Section 401 CWA certification/waiver	Texas Commission on Environmental Quality			
Steambed and lake alteration agreements	Texas Parks and Wildlife Department			
Endangered species consultation	Texas Parks and Wildlife Department			
Hazardous materials release response plan	City or County environmental health department			
Domestic well and septic system permit	City or County environmental health department			
Building permits	City or County environmental health department			
Encroachment approval	Reclamation district			

#### III. OPERATIONAL LIABILITIES

Liabilities associated with CO<sub>2</sub> transport and injection activities are known and managed by oil and gas companies in the context of EOR. Below, we provide a summary of potential post-injection operational liabilities specifically associated with long-term CO<sub>2</sub> storage.

# A. OVERVIEW OF POTENTIAL LIABILITIES

While liabilities associated with long-term  $\mathrm{CO}_2$  storage are uncertain due to the lack of experience with storage of  $\mathrm{CO}_2$  in the quantities and for the time periods contemplated, a number of studies have identified the likely types and categories of such liabilities. One such study identifies five major categories of risk: "toxicological effects, environmental effects, induced seismicity, sub-surface trespass, and climate effects."

Mark de Figueiredo et al., *The Liability of Carbon Dioxide Storage*, at 2, http://sequestration.mit.edu/pdf/GHGT8\_deFigueiredo.pdf.

These risk categories relate to two general types of post-injection liabilities: "in situ liability of harm to human health, the environment, and property," and "climate liability related to leakage of  $\mathrm{CO}_2$  from geological reservoirs and the effect on climate change."

#### 1. IN SITU LIABILITY

- Toxicological Effects. While the chances of a deadly release from a properly managed geological formation are generally low, the toxicological effects of upwellings and seeps of naturally occurring CO<sub>2</sub> worldwide are widely documented and have caused human deaths in addition to ecosystem damage.<sup>65</sup> Releases could also occur from improperly abandoned wells or newly drilled wells, seismic activity, or migration of the gas from the protected reservoir to other reservoirs with active wells.<sup>66</sup> These exposures suggest the importance of locating CCS operations over formations that are determined not to have increased risks of such failures.
- Environmental Effects. Leakage from underground CO<sub>2</sub> storage facilities may result in risks to both surface and subsurface soil and aquatic ecosystems including acidification of soils and water.<sup>67</sup>
- <u>Induced Seismicity.</u> While induced seismicity has not been observed in connection with CCS, minor seismic events have been observed (or alleged) in connection with other injection activities in seismically active areas.<sup>68</sup>
- <u>Subsurface Trespass.</u> Failure to obtain rights from mineral or water-rights holders whose properties or activities are impacted by the storage activities may lead to trespass or related actions if the CO<sub>2</sub> escapes from the intended reservoir system.<sup>69</sup>

#### 2. CLIMATE LIABILITY

Leakage from the storage formation into the atmosphere would be treated as an emission subject to applicable regulations. However, without any relevant agency determinations on these issues, presently it is impossible to determine which regulatory regime would ultimately be applied.<sup>70</sup> It is expected that CCS projects will be pursued

Mark de Figueiredo et al., *The Liability of Carbon Dioxide Storage*, presented at the Eighth International Conference on Greenhouse Gas Control Technologies, Trondheim, Norway (2006), available at http://web.mit.edu/defig/www/publications.html.

<sup>65</sup> Janet Wilson, Team Hopes to Drill Its Way to Global Warming Solution, L.A. TIMES, Oct. 25, 2006.

<sup>66</sup> de Figueiredo et al., supra note 64.

<sup>67</sup> Edward Vine, Regulatory Constraints to Carbon Sequestration in Terrestrial Ecosystems and Geologic Formations: A California Perspective, in Mitigation and Adaptation Strategies for Global Change, Vol. 9: 77, 89 (2004).

<sup>68</sup> de Figueiredo et al., supra note 64.

<sup>69</sup> de Figueiredo et al., supra note 64.

Some persons suggest that the EPA has considered the issue of leakage as part of the proposed rule regarding the creation of a Class VI UIC well, but considers that regulatory issue to be outside of its legislative authority under the Safe Drinking Water Act. See, 73 Fed. Reg. 43,492, at 43,497-43,498. Therefore, it remains to be seen how any of these leakages will be addressed. It is possible that they may be handled through a regime similar to that used for

to qualify parties for exemptions from carbon emissions ceilings or related obligations or to obtain carbon credits or other trading rights. The possibility of  $CO_2$  leakage may impair the initial qualification of CCS projects for those regulatory benefits and any actual leakage could result in revocation or reduction of those benefits.

#### B. RESPONSIBLE PARTIES

The parties potentially responsible for operational liabilities include the person whose activities generated the CO<sub>2</sub>, the injector of the CO<sub>2</sub>, the owner of the CO<sub>2</sub>, and possibly the surface or mineral rights owner whose subsurface formation is being used for storage. The IOGCC proposes that during the period commencing when the injection wells have been plugged and continuing for some to-be-determined period of time after injection activities cease, the operator will be responsible for potential liabilities and required to maintain the operational bond and individual or blanket well bonds (with individual well bonds released as the wells are plugged).<sup>72</sup>

The complexity of this topic derives from liabilities arising in further post-operational phases. Recognizing the difficulty of assigning storage-related liability to individual creditworthy private parties given the long-term nature of the proposed projects, the IOGCC proposes that a trust fund supported by taxes or other impositions on injected volumes of CO<sub>2</sub> finance any monitoring activities and liability exposures for stored gas ten years following cessation of injection activity.<sup>73</sup> However, this proposal is only a model statute, and it is possible that the desired release of liability will be conditioned on the adoption of some industry-level or publicly administered fund, insurance scheme (akin to the Price-Anderson Act for nuclear energy utilization), or similar measures.<sup>74</sup>

- fugitive emissions from different point sources. For examples of how fugitive emissions are regulated, see generally, 40 C.F.R. Part 60.
- The deliberations of the intergovernmental Carbon Sequestration Leadership Forum (CSLF), and the U.S. Supreme Court's recent decision regarding motor vehicle emissions in Massachusetts v Environmental Protection Agency (Apr. 2, 2007) will likely result in regulatory activity addressing CO<sub>2</sub> emissions from sources that can employ geological CCS. See also MIT Study on the Future of Coal (MIT 2007). In addition, as previously noted, the Supreme Court's decision may result in CO<sub>2</sub> being classified as a waste, rather than as a commodity, for purposes of CCS. Government entitlements such as the permits addressed in Section 2 above likely will contain authorizations for CCS projects that qualify for these benefits, and will govern the manner in which qualifying projects will be designed, built and monitored.
- 72 IOGCC, REGULATORY GUIDE FOR STATES, supra note 8, at 29.
- 73 Id. at 30.
- For example, in 2006, Texas Governor Rick Perry signed into law HB 149. This bill facilitated the FutureGen Industrial Alliance which, until suspension of the large-scale project in January 2008, planned to build a near-zero emissions fossil fuel energy facility that would generate electricity, produce hydrogen and provide for CCS. The Alliance would be shielded from CCS liability by authorizing the University of Texas System and Permanent University Fund to enter into a lease for permanent CO<sub>2</sub> storage with the Railroad Commission of Texas or a project owner or operator, but requiring adequate indemnification of the System and the Fund by the Railroad Commission or the owner or operator of a clean coal project against claims resulting from CO<sub>2</sub> migration or escape. A number of other states have passed, or are considering, bills that address liability as well as other issues related to CCS. One example is

#### IV. CONCLUSION

CCS is a rapidly developing field and is subject to changes in domestic and international practices, laws, and public policies. We encourage interested parties to monitor developments, including changes in treatment of the matters discussed in this article. Concerted efforts on the part of all stakeholders – regulatory agencies, coal and gas producers, EOR operators, utilities, pipeline companies, storage facility operators, carbon emissions traders and technology licensors – will be necessary to make CCS project development a reality.

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Wyoming, which has already enacted two statutes on the CCS issue. One statute vests pore space ownership with the surface owner, and the other creates the legislative and regulatory framework for regulating CCS. *See generally*, Wyoming H.B. 89 (Mar. 4, 2008), available at http://legisweb.state.wy.us/2008/Enroll/HB0089.pdf and Wyoming H.B. 90 (Mar. 4, 2008), available at http://legisweb.state.wy.us/2008/Enroll/HB0090.pdf.

# MASSACHUSETTS V. EPA: STANDING UP FOR STATES' RIGHTS IN THE BATTLE OVER CLIMATE CHANGE

#### BY CLEVE BURKE

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### I. INTRODUCTION

In recent years, concern over the effects of climate change has grown significantly in the minds of the American public and the world at large. What was once seen as a questionable and unproven theory has now achieved widespread acceptance in the scientific and lay communities.¹ Accordingly, the momentum behind efforts to regulate greenhouse gases (GHGs), which are the leading cause of climate change and primarily consist of carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, and hydrofluorocarbons,²

<sup>1</sup> See infra note 5.

<sup>2</sup> Mass. v. EPA, 127 S. Ct. 1438, 1449 (2007).

has increased dramatically in the United States in the past two years.<sup>3</sup> Lawmakers and administrative agencies have been under growing pressure to take the initiative in imposing a mandatory regulatory framework to reduce GHG emissions in the United States, which alone produces almost one quarter of the world's CO<sub>2</sub> emissions.<sup>4</sup> However, as of yet, the federal government has not made any attempt to regulate emissions of GHGs.

The pressure to take action is coming from a wide range of sources. Perhaps most importantly, the science supporting the global warming phenomenon has grown more compelling with each study published on the subject.<sup>5</sup> Al Gore's film about the issue, "An Inconvenient Truth," gained widespread acclaim and brought climate change to the forefront of the American conscience like never before, even winning an Oscar for "Best Documentary" in 2007.6 States and cities have begun efforts to reduce GHG emissions in an attempt to fill the void left by the federal government, placing pressure on Congress and federal agencies to take action and develop a uniform national regulatory scheme. International efforts to meet the goals laid out in the Kyoto Protocol have also placed the United States on the hot seat.8 Wall Street, perhaps the most conspicuous bastion of pro-business sentiment in the country, has begun encouraging companies to pursue "green" policies and take into account potential regulatory costs in their calculations for future operations.9 Even major corporations in the industrial sector have come to see regulation of GHGs as inevitable, and some have even pushed for regulation in order to achieve some level of certainty on which to plan for their future.<sup>10</sup> Finally, citizens, environmental groups, and states have brought a growing

<sup>3</sup> See Jerry Adler, Moment of Truth, Newsweek, Apr. 16, 2007, at 46.

<sup>4</sup> U.S. Greenhouse Gas Inventory Report: Exec. Summary, Apr. 2007, at 6, *available at* http://www.epa.gov/climatechange/emissions/usinventoryreport.html.

<sup>5</sup> See, e.g., The Intergovernmental Panel on Climate Change, Climate Change 2007: The Physical Science Basis, available at http://www.ipcc.ch/ipccreports/ar4-wg1.htm; see also The Future of Coal: An Interdisciplinary MIT Study, available at http://web.mit.edu/coal/.

<sup>6 2007</sup> Oscar Winners, N.Y. TIMES, Feb. 26, 2007, at E5.

See, e.g., Karen Breslau, *The Green Giant*, Newsweek, Apr. 16, 2007, at 51-59 (discussing California's efforts to reduce GHG emissions through its Global Warming Solutions Act); see also Anne Underwood, Mayors Take the Lead, Newsweek, Apr. 16, 2007, at 68-73 (discussing municipal efforts to reduce GHG emissions); see also The Regional Greenhouse Gas Initiative, http://www.rggi.org (last visited Feb. 28, 2008) (outlining a regional plan adopted by eleven Northeastern states to curb GHG emissions).

See Conference of the Parties to the Framework Convention on Climate Change: Kyoto Protocol, 37 I.L.M. 22 (1998). The Kyoto Protocol was adopted Dec. 10, 1997 as a part of the U.N. Framework Convention on Climate Change, and it requires participating countries to reduce emissions of GHGs to 8% below 1990 levels. Although most developed nations have signed on to the Kyoto Protocol, the U.S. has declined to do so.

<sup>9</sup> See e.g., Andrew R. Sorkin, A \$45 Billion Buyout Deal with Many Shades of Green, N.Y. TIMES, Feb. 26, 2007, at A19 (discussing TXU Corporation's abandonment of plans to develop numerous coal-fired power plants in Tex. due to pressure from environmental coalitions and private equity firms such as Goldman Sachs).

<sup>10</sup> Felicity Barringer, A Coalition for Firm Limit on Emissions, N.Y. TIMES, Jan. 19, 2007, at C1.

number of suits against federal agencies and private entities in an attempt to use the courts to force private and governmental action to address global warming.<sup>11</sup>

The most prominent of these lawsuits is Massachusetts v. Environmental Protection Agency (EPA), in which several states challenged the EPA's denial of a petition for rulemaking requesting it to regulate CO<sub>2</sub> and other GHG emissions from new motor vehicles under the Clean Air Act (CAA).<sup>12</sup> Massachusetts was the first case in which the Supreme Court addressed the issue of global warming. In a 5-4 decision, the Court ruled that the EPA has the authority to regulate CO<sub>2</sub> emissions and the agency's stated reasons for declining to do so up to this point were insufficient under the statute.<sup>13</sup> Perhaps the most surprising aspect of the Court's ruling was the decision to confer standing upon the petitioners, which represented a significant departure from the Court's jurisprudence.<sup>14</sup> In the process of finding that it had jurisdiction to hear the petitioners' suit against the EPA, the Court found that Massachusetts' status as a state afforded it special treatment in its standing analysis.<sup>15</sup> This determination helped Massachusetts to overcome the most significant hurdle facing plaintiffs seeking redress for injuries linked to global warming.

In recent decades, plaintiffs have found it increasingly difficult to bring lawsuits designed to compel agency action in implementing environmental statutes. <sup>16</sup> By setting the standing bar higher for beneficiaries of public interest legislation than for regulated parties, the Court has often made it possible for agencies to avoid litigating suits brought by plaintiffs seeking regulation of third parties. In *Massachusetts*, the Court seems to have retreated from this bias against beneficiary plaintiffs in an effort to swing the pendulum back the other way. However, instead of openly disavowing its prior articulation of the standing doctrine, the Court applied the *parens patriae* doctrine to its standing analysis in a manner that has at best a tenuous foundation in its jurisprudence. <sup>17</sup> This judicial reasoning serves to undermine the breadth and strength of *Massachusetts*, and ultimately it may prove fatal to its influence and longevity as a precedent.

In Part II, I will outline the foundations of the standing doctrine. Part III is a discussion of the evolution of the standing doctrine through the early 1970s, when the Court applied the doctrine in a relatively liberal manner. In Part IV, I will consider

See, Conn. v. Am. Elec. Power Co., Inc., 406 F. Supp. 2d 265 (S.D.N.Y. 2005) (plaintiffs sought injunctive relief against the five largest U.S. electric power utilities under a public nuisance theory for their contributions to global warming); see also Friends of the Earth, Inc. v. Watson, 2005 U.S. Dist. LEXIS 42335 (N.D. Cal. Aug 23, 2005) (plaintiffs asserted that the Overseas Private Investment Corp., an independent government corporation, failed to follow the requirements of the Nat'l Envtl. Policy Act when it funded overseas development projects contributing to global warming); see also Comer v. Nationwide Mutual Ins. Co., 2006 U.S. Dist. LEXIS 33123 (S.D. Miss. Feb 23, 2006) (plaintiffs sued chemical and oil companies based on their contributions to global warming, which they alleged increased the destructive force of Hurricane Katrina).

<sup>12 127</sup> S. Ct. 1438, 1449 (2007)

<sup>13</sup> Id. at 1462-63.

<sup>14</sup> See infra Parts III, IV.

<sup>15</sup> See infra Part V.

<sup>16</sup> See infra Part IV.

<sup>17</sup> See infra Parts V, VI.

the effects of the Court's 1992 decision, Lujan v. Defenders of Wildlife, 18 which was the culmination of a broader effort by the Court to apply standing doctrine in a more stringent fashion in order to restrict access to the courts. In Part V, I will analyze the Court's reliance on the parens patriae doctrine in Massachusetts. Part VI presents an examination of the Court's application of Defenders of Wildlife in Massachusetts. Finally, in Part VII, I will close with some final considerations on the implications of Court's ruling in Massachusetts, particularly as it relates to Texas practitioners.

## II. STANDING: AN OVERVIEW

Standing is "the key to the courthouse door." <sup>19</sup> Those parties who cannot establish it are barred from having their suits adjudicated in the federal courts. <sup>20</sup> The standing doctrine attempts to ensure that the particular plaintiffs before the court are the appropriate parties to be bringing the suit in question. As the Court put it in Warth v. Seldin, "In essence the question of standing is whether the litigant is entitled to have the court decide the merits of the dispute or of particular issues. This inquiry involves both constitutional limitations on federal-court jurisdiction and prudential limitations on its exercise." <sup>21</sup> It is a judicial construct that has its roots in Article III of the Constitution, which restricts federal jurisdiction to "Cases" and "Controversies." <sup>22</sup> Because the Framers failed to define these broad terms specifically, the courts have relied on the standing doctrine as a self-imposed check to identify "those disputes which are appropriately resolved through the judicial process." <sup>23</sup> At its heart, the doctrine seeks to ensure that the plaintiffs have "such a personal stake in the outcome of the controversy as to assure the concrete adverseness which sharpens the presentation of the issues upon which the court so largely depends for illumination." <sup>24</sup>

Standing doctrine can be divided into two basic components: prudential and constitutional standing.<sup>25</sup> To establish constitutional standing, a plaintiff must show "injury in fact" that is "fairly traceable" to the defendant's challenged conduct and "likely" to be redressed by a favorable decision in the court.<sup>26</sup> These three factors rep-

<sup>18 504</sup> U.S. 555 (1992).

<sup>19</sup> Peter L. Strauss, Todd D. Rakoff & Cynthia R. Farina, Gellhorn and Byse's Administrative Law: Cases and Comments 1117 (10th rev. ed. 2003).

Valley Forge Christian Coll. v. Am. United for Separation of Church & St., Inc., 454 U.S. 464, 475-476 (1982).

<sup>21 422</sup> U.S. 490, 498 (1975).

<sup>22</sup> U.S. Const. art. III, § 2.

<sup>23</sup> Defenders of Wildlife, 504 U.S. at 560 (quoting Whitmore v. Arkansas, 495 U.S. 149, 155 (1990)).

<sup>24</sup> Baker v. Carr, 369 U.S. 186, 204 (1962).

<sup>25</sup> See Valley Forge, 454 U.S. at 474.

<sup>26</sup> Defenders of Wildlife, 504 U.S. at 560-561 (citations omitted).

resent the "core component" of standing,<sup>27</sup> which a plaintiff must show to seek redress in federal court. This constitutional core, which can be analogized to a castle keep, is also protected by an outer bailey of prudential standing, which the courts may find lacking even if the elements of constitutional standing are satisfied.<sup>28</sup>

Prudential standing doctrine embraces an assortment of situations in which the court will still deny plaintiffs access to the courts even though the requirements of injury in fact, causation, and redressability may be met. For example, courts will deny standing on prudential grounds when a claim presents a political question,<sup>29</sup> when parties seek an advisory opinion,<sup>30</sup> when a dispute has been rendered moot,<sup>31</sup> or when the plaintiff's interest does not fall within the "zone of interests" that the relevant constitutional provision or statute is intended to protect.<sup>32</sup> Courts have also applied prudential limitations on the ability of parties to bring suit to vindicate another's claim, but those restrictions are waived under certain circumstances. One of these situations is when states sue *parens patriae*,<sup>33</sup> which is a type of standing that allows states to bring suit on behalf of their "quasi-sovereign" interests as representatives of their citizens. *Parens patriae* is particularly relevant to the Court's holding in *Massachusetts* and will be discussed at length below.

## III. STANDING DOCTRINE COMES ALIVE

Standing doctrine took on a whole new significance in the 1960s and 1970s that, as a practical matter, it had never previously enjoyed.<sup>34</sup> This development is summarized in *Gellhorn and Byse's Administrative Law*:

Standing as a distinct legal concept is largely a phenomenon of the last half of the 20th century. Before that time, litigation occurred principally within the private-rights pattern in which the question of who could seek relief was elided with the question of whether the complaint stated a cause of action. Two socio-legal developments altered this: a new conception of the nature and function of constitutional rights, fueled by the civil rights movement; and the emergence of the administrative state, with its complex and broadly applicable statutory rights and duties.<sup>35</sup>

As Congress passed a whole series of public interest statutes and administrative agencies took on a more expansive role in the federal government, the courts were opened up to a multitude of plaintiffs who never would have had viable claims in

<sup>27</sup> See Allen v. Wright, 468 U.S. 737, 751 (1984).

<sup>28</sup> See Valley Forge, 454 U.S. at 474-475.

<sup>29</sup> Luther v. Borden, 7 How. 1 (1849).

<sup>30</sup> Clinton v. Jones, 520 U.S. 681, 700 n.33 (1997).

<sup>31</sup> Cal. v. San Pablo & Tulare R. Co., 149 U.S. 308 (1893).

<sup>32</sup> Assn. of Data Processing Serv. Orgs., Inc. v. Camp, 397 U.S. 150, 153 (1970).

<sup>33</sup> Literally, "parent of his or her country." Black's Law Dictionary 511 (2nd Pocket ed. 2001).

<sup>34</sup> STRAUSS ET AL., supra note 19, at 1117.

<sup>35</sup> Id. at 1126.

the past.<sup>36</sup> A prime example of this phenomenon was the new breed of plaintiffs that emerged seeking agency enforcement of environmental statutes. The Court applied the standing doctrine to these complainants with a leniency that stands in stark contrast to the Court's decisions in the two decades leading up to *Massachusetts*.<sup>37</sup>

Two cases in the 1970s demonstrate the Court's early willingness to adjudicate disputes on behalf of the public interest.<sup>38</sup> In *Sierra Club v. Morton*, the Sierra Club brought suit against the Secretary of the Interior to enjoin the development of a theme park in the Sierra Nevada Mountains.<sup>39</sup> In an attempt to expand the availability of standing to organizations as well as individuals,<sup>40</sup> the Sierra Club sued on its own behalf due to its "special interest in the conservation and the sound maintenance of the national parks, game refuges and forests of the country."<sup>41</sup> In what seemed like a defeat for environmentalists, the Court ultimately denied standing because the Sierra Club had not asserted injury to any specific individual.<sup>42</sup> However, during the course of the opinion, the Court held squarely for the first time that interests in "aesthetic and environmental well-being" were cognizable under the law.<sup>43</sup> Soon thereafter, the Sierra Club established "associational standing" easily when it amended its complaint to allege harm to its individual members as well as to the organization itself.<sup>44</sup>

The following year, the notion that harm to environmental and recreational interests could constitute an injury in fact was pushed to its limits in *United States v. Students Challenging Regulatory Agency Procedures* (SCRAP).<sup>45</sup> In that case, the petitioners claimed that the Interstate Commerce Commission's allowance of a general increase in railroad rates would harm their interest in enjoying the natural beauty of Washington State, and, therefore, the agency should be required to prepare an environmental impact statement under the National Environmental Policy Act.<sup>46</sup> The Court summarized the plaintiffs' argument as follows:

[A] general rate increase would allegedly cause increased use of nonrecyclable commodities as compared to recyclable goods, thus resulting in the need to use more natural resources to produce such goods, some of which resources might be taken from the Washington area, and resulting in more refuse that might be discarded in national parks in the Washington area.<sup>47</sup>

<sup>36</sup> Id.; see also Data Processing, 397 U.S. at 154.

<sup>37</sup> See U.S. v. Students Challenging Reg. Agency Proc. (SCRAP), 412 U.S. 669 (1973).

<sup>38</sup> Sierra Club v. Morton, 405 U.S. 727 (1972); SCRAP, 412 U.S. 669.

<sup>39 405</sup> U.S. at 730.

<sup>40</sup> Strauss et al., supra note 19, at 1135.

<sup>41</sup> Sierra Club, 405 U.S. at 730.

<sup>42</sup> Id. at 734.

<sup>43</sup> Id.

<sup>44</sup> STRAUSS ET AL., supra note 19, at 1137.

<sup>45 412</sup> U.S. 669 (1973).

<sup>46</sup> Id. at 688.

<sup>47</sup> Id.

While the Court acknowledged that "pleadings must be something more than an ingenious academic exercise in the conceivable," it found that the plaintiffs had asserted an injury in fact sufficient to establish standing.<sup>48</sup>

SCRAP represents the high-water mark in Supreme Court jurisprudence for claimants seeking to bring suit against federal agencies for failure to comply with public interest statutes. 49 Soon thereafter, the Court began to impose more stringent standing requirements. Besieged by what it viewed as a flood of litigation from "a potential nation of plaintiffs" that threatened to overwhelm the federal judicial system, the Court looked to standing as a means to stem the tide. 51 This endeavor gained significant momentum in the late 1980s behind the efforts of the newly-appointed Justice Scalia, culminating in the Court's 1992 decision in *Defenders of Wildlife*. 52

# IV. LUJAN V. DEFENDERS OF WILDLIFE: JUSTICE SCALIA WINS THE DAY

In *Defenders of Wildlife*, the plaintiff environmental group alleged that its members would suffer harm due to a rule that the Department of the Interior promulgated that concluded that the Endangered Species Act (ESA) did not apply to projects conducted overseas.<sup>53</sup> The ESA requires federal agencies to consult with the Secretary of the Interior when undertaking or funding projects that pose a risk to endangered species, threatened species, or habitat that has been designated as "critical" to those species by the Secretary.<sup>54</sup> The plaintiff's specific claim was that two of its members would suffer irreparable injury due to the funding of projects by the Agency for International Development (AID) in Egypt and Sri Lanka, which would harm endangered species that those members had observed in the past and planned to view again sometime in the future.<sup>55</sup> Due to the Secretary's interpretation of the ESA, AID would not be required to consult with the Secretary regarding the potential effects of those projects on endangered species.<sup>56</sup>

<sup>48</sup> Id. at 688-89.

<sup>49</sup> See Lujan v. Nat'l Wildlife Fed'n, 497 U.S. 871, 889 (1990).

Peter W. Low & John C. Jeffries, Jr., Federal Courts and the Law of Federal-State Relations 333 (4th ed. 1998).

<sup>51</sup> See Schlesinger v. Reservists Comm. to Stop the War, 418 U.S. 208 (1974) (denying standing to plaintiffs challenging the holding of military commissions by active Members of Congress as a violation of the Incompatibility Clause); Valley Forge Christian Coll. v. Am. United for Separation of Church & St., Inc., 454 U.S. 464 (1982) (denying standing to taxpayers challenging a federal agency's gift of lands to a Christian college as a violation of the Establishment Clause); Allen v. Wright, 468 U.S. 737 (1984) (denying standing to children and their parents allegedly harmed by federal tax exemptions granted to allegedly discriminatory private schools).

<sup>52 504</sup> U.S. 555 (1992).

<sup>53</sup> Id. at 557-58.

<sup>54 16</sup> U.S.C. § 1536(a)(2) (2006).

<sup>55</sup> Defenders of Wildlife, 504 U.S. at 563.

<sup>56</sup> Id. at 562.

Justice Scalia, writing for the majority, began by synthesizing the Court's prior case law establishing the "irreducible constitutional minimum" of standing that Article III requires:

First, the plaintiff must have suffered an "injury in fact" – an invasion of a legally protected interest which is (a) concrete and particularized and (b) "actual or imminent, not 'conjectural' or 'hypothetical.'" Second, there must be a causal connection between the injury and the conduct complained of – the injury has to be "fairly ... trace[able] to the challenged conduct of the defendant, and not ... the result [of] independent action of some party not before the court." Third, it must be "likely," as opposed to merely "speculative," that the injury will be "redressed by a favorable decision." <sup>57</sup>

The Court then went on to discuss how standing should function in the regulatory context. It observed that when the party challenging the agency action is a regulated entity, the elements of injury in fact, causation, and redressability are generally satisfied fairly easily.<sup>58</sup> In contrast, the Court opined that "when the plaintiff is not himself the object of the government action or inaction he challenges, standing is not precluded, but it is ordinarily 'substantially more difficult' to establish."<sup>59</sup>

In addressing the injury in fact prong of the constitutional standing inquiry, the Court first recognized its prior holding that an aesthetic interest in viewing endangered species could constitute a "cognizable interest for the purposes of standing." However, the Court emphasized that its ruling in *Sierra Club* did not relieve the plaintiff from proving some injury specific to him or herself. In evaluating the alleged injuries in the case, the Court found that the plaintiffs' indefinite plans to return to the areas in question to view endangered species was not "imminent" enough to satisfy the requirements of Article III standing. <sup>62</sup>

In a separate portion of the opinion joined by a plurality, Justice Scalia also found that the plaintiff's claim failed to show redressability.<sup>63</sup> First of all, Justice Scalia observed that even if the agencies were required to consult with the Secretary prior to funding foreign projects affecting endangered species, it was uncertain whether those agencies would be required to comply with the Secretary's recommendations on the matter.<sup>64</sup> Furthermore, Justice Scalia emphasized that only a small portion of the funding behind those projects originated with AID.<sup>65</sup> Thus, it was highly likely that they would go forward with or without the assistance of AID, and therefore the endangered

<sup>57</sup> Id. at 560-61 (citations omitted).

<sup>58</sup> Id. at 561-62.

<sup>59</sup> Id. at 562.

<sup>60</sup> Id. at 562-63.

<sup>61</sup> Id. at 563.

<sup>62</sup> Id. at 564.

<sup>63</sup> *Id.* at 568 (plurality).

<sup>64</sup> Id.

<sup>65</sup> Id. at 571.

species (and the plaintiffs) would suffer the same fate even if the Court were to rule favorably for the plaintiffs.<sup>66</sup>

The plaintiffs also asserted standing due to the "procedural injury" that they had allegedly suffered under the "citizen suit" provision of the ESA, which provides that "any person may commence a civil suit in his own behalf ... to enjoin any person, including the United States and any other governmental instrumentality or agency ... who is alleged to be in violation of any provision of this chapter." The Court found that Congress' attempt to confer standing upon individuals without a personalized injury more concrete than a desire to see the law observed was an impermissible intrusion on the Executive's duty to "take Care that the Laws be faithfully executed" under Article II. In support of this notion, the Court recited a litany of cases in which it had declined to confer standing upon plaintiffs asserting what amounted to a "generally available grievance about government." In the past, the Court had always based these decisions on the restrictions placed upon the federal judiciary by the case-or-controversy requirement of Article III. However, the Court introduced a new element into the standing doctrine when it suggested that adjudicating such claims would violate the strictures of Article II.

The Court's decision in *Defenders of Wildlife* represented a significant reigning in of its liberal application of standing doctrine in the environmental context. The theory of standing announced by the Court that afforded access to the courts to regulated parties with open arms while imposing a heavier burden on those seeking the regulation of third parties served to create an uneven playing field.<sup>70</sup> Some critics have observed that this new theory of standing created a "one-way ratchet" that "systematically corrects over-regulation but rarely addresses under-regulation." This effect accords well with Justice Scalia's position on the role of the courts in the regulatory context.<sup>72</sup>

Justice Scalia expressed his views on the matter in a law review article he published prior to joining the Court. In the article, he argued that denying standing to cases challenging under-enforcement was "a good thing" because it gave the Executive the flexibility to enforce those regulations that the public supported and "lose or misdirect laws" that had fallen from favor.<sup>73</sup> The article laid out the antecedents of Justice Scalia's emphasis in *Defenders of Wildlife* on the importance of the standing doctrine for protecting the prerogative of the President as defined in the Take Care Clause of Article II. One commentator forcefully argued that the Court's refusal to address the under-enforcement of regulations "is a violation of democratic aspirations and (more

<sup>66</sup> Id.

<sup>67</sup> Id. at 571-572 (majority opinion) (quoting 16 U.S.C. § 1540(g) (2002)).

<sup>68</sup> Id. at 577.

<sup>69</sup> Id. at 574-577; but see Flast v. Cohen, 392 U.S. 83 (1968) (granting standing to a federal taxpayer challenging federal funding of parochial schools as a violation of the Establishment Clause).

<sup>70</sup> STRAUSS ET AL., supra n. 19, at 1148.

<sup>71</sup> Id

<sup>72</sup> See Antonin Scalia, The Doctrine of Standing as an Essential Element of the Separation of Powers, 17 SUFFOLK U. L. REV. 881 (1983).

<sup>73</sup> Id. at 897.

relevant still) of the system for national lawmaking set up by Articles I and II of the Constitution."<sup>74</sup> Regardless, *Defenders of Wildlife* was the controlling case in the area of standing doctrine leading up to *Massachusetts*, which made the Court's decision on the standing issue all the more unexpected.

#### V. THE PARENS PATRIAE DOCTRINE IN MASSACHUSETTS V. EPA

Prior to considering whether Massachusetts had shown injury in fact, causation, and redressability as required by *Defenders of Wildlife*, the Court in *Massachusetts* began with a discussion of the *parens patriae* doctrine. As noted above, the D.C. Circuit had previously characterized *parens patriae* as a special form of prudential standing.<sup>75</sup> In contrast, rather than construing the *parens patriae* doctrine as a prudential limitation on standing, the Court chose to include it as part of its constitutional standing analysis. Writing for the majority, Justice Stevens placed considerable weight on Massachusetts' status as a sovereign state, a fact that he believed "entitled [it] to special solicitude in [the Court's] standing analysis."<sup>76</sup> In his dissent, Chief Justice Roberts protested vehemently that such "solicitude" was unfounded in the Court's precedents,<sup>77</sup> a charge that is difficult to deny based on a close reading of prior *parens patriae* jurisprudence.

#### A. MEANING OF PARENS PATRIAE

The Supreme Court has long acknowledged the ability of states to sue *parens patriae* in order to protect their quasi-sovereign interests. Similar to the associational standing, which the plaintiff in *Sierra Club* invoked on behalf of its members, *parens patriae* standing allows a state to bring suit to prevent harm to its citizens. The Court has describe quasi-sovereign interests as "a judicial construct that does not lend itself to a simple or exact definition," but the *Massachusetts* Court cited with approval to a prominent casebook describing them as "public or governmental interests that concern the state as a whole." 80

Quasi-sovereign interests are perhaps best defined by distinguishing them from other forms of state interests, such as sovereign interests, proprietary interests, or "private interests pursued by the State as a nominal party." Sovereign interests include the exercise of power over individuals within a state's jurisdiction through its legal system and "the demand for recognition from other sovereigns," usually in the context

<sup>74</sup> Cass R. Sunstein, What's Standing After Lujan? Of Citizen Suits, "Injuries," and Article III, 91 MICH. L. REV. 163, 165 (1992).

<sup>75</sup> Mass. v. EPA, 127 S. Ct. 1438, 1466 n.1 (2007) (Roberts, C.J., dissenting) (citing Venez. v. Phillip Morris, Inc., 287 F.3d 192, 199 (D.C. Cir. 2002)).

<sup>76</sup> Mass., 127 S. Ct. at 1455.

<sup>77</sup> Id. at 1464 (Roberts, C.J., dissenting).

<sup>78</sup> See La. v. Tex., 176 U.S. 1 (1900); see also Ga. v. Tenn. Copper Co., 206 U.S. 230 (1907).

<sup>79</sup> Alfred L. Snapp & Son v. P.R., 458 U.S. 592,601 (1982).

<sup>80</sup> Mass., 127 S. Ct. at 1455 n.17 (quoting Richard H. Fallon, et al., Hart & Weschler's The Federal Courts and The Federal System 289 (5th ed. 2003)).

<sup>81</sup> Snapp, 458 U.S. at 602.

of border disputes.<sup>82</sup> Proprietary interests are those stemming from a state acting in a private capacity, such as the ownership of land or the operation of a state-owned business.<sup>83</sup> When a state acts as a nominal party, it is merely representing the interests of private citizens and does not have any governmental stake in the dispute of its own.<sup>84</sup> In contrast, quasi-sovereign interests are those interests that concern the welfare of a state and its citizens as a whole.<sup>85</sup> This category is potentially extremely broad, but it is not without limitation. It still must satisfy the constitutional constraints of Article III, meaning that it "must be sufficiently concrete to create an actual controversy between the State and the defendant."<sup>86</sup> Thus, courts will impose prudential limitations on the ability of states to sue *parens patriae*.

#### B. JURISPRUDENTIAL FOUNDATIONS OF PARENS PATRIAE

In 1900, the Supreme Court first recognized the ability of states to sue *parens* patriae in order to protect quasi-sovereign interests. In Louisiana v. Texas, Louisiana sought the original jurisdiction of the Court to enjoin Texas officials from embargoing commerce from New Orleans, which was suffering from an outbreak of yellow fever. Recourt characterized Louisiana's position in the case as parens patriae, because it was not protesting "any infringement of the powers of the State of Louisiana ... or any special injury to her property," but rather it sought relief because "the matters complained of affect[ed] her citizens at large." Ultimately, however, the Court found that the alleged injury was insufficiently concrete to support constitutional standing: "[S] omething more must be put forward than that the citizens of one State are injured by the maladministration of the laws of another." Thus, the Court showed an unwillingness to rely on an indirect chain of causation resulting in mere economic harm to Louisiana.

However, in two cases following soon thereafter, the Court granted *parens patriae* standing to states seeking to abate public nuisances caused by pollution emanating from outside their borders. In the year after *Louisiana*, the Court in *Missouri v. Illinois* upheld Missouri's standing to enjoin Chicago from dumping sewage into the Mississippi River, which flowed downstream and posed a threat to Missouri and its citizens. The court reasoned that the widespread nature of the potential harms being alleged and Missouri's status as a state militated for the Court's decision to grant jurisdiction over the suit:

<sup>82</sup> Id. at 601.

<sup>83</sup> Id.

<sup>84</sup> Id. at 602.

<sup>85</sup> Id.

<sup>86</sup> Id.

<sup>87</sup> La. v. Tex., 176 U.S. 1 (1900).

<sup>88</sup> Id. at 1.

<sup>89</sup> Id. at 19.

<sup>90</sup> Id. at 22.

<sup>91</sup> Mo. v. Ill., 180 U.S. 208 (1901); Ga. v. Tenn. Copper Co., 206 U.S. 230 (1907).

<sup>92 180</sup> U.S. at 241.

[I]t must surely be conceded that, if the health and comfort of the inhabitants of a State are threatened, the State is the proper party to represent and defend them. If Missouri were an independent and sovereign State all must admit that she could seek a remedy by negotiation, and, that failing, by force. Diplomatic powers and the right to make war having been surrendered to the general government, it was to be expected that upon the latter would be devolved the duty of providing remedy....<sup>93</sup>

Thus, parens patriae has its roots in the principles of federalism. When the States entered the Union, they gave up certain sovereign rights held on behalf of their citizens in exchange for the protections provided by the federal judicial system. Parens patriae standing is a means by which states may vindicate those rights in federal court.

In Georgia v. Tennessee Copper Co., decided in 1907, the Court again recognized that a state has a quasi-sovereign interest in protecting the health of its environment and its citizens from external threats. 94 Georgia brought suit against private entities in a neighboring state whose factory emissions of "noxious gas" were resulting in the destruction of forests, orchards, and crops within its borders. 95 Speaking for the Court, Justice Holmes eloquently explained that "the State has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air." This principle was true even though only a small portion of the land being destroyed was actually owned by the state itself. 97 Although Justice Harlan concurred in the judgment, he disagreed with the Court's granting of an injunction to Georgia solely "because it happens to be a State possessing some powers of sovereignty."98 Justice Harlan believed that Georgia, like a private party under the same circumstances, should only be afforded a remedy at law, and he closed by rejecting the majority's view that the Court "owes some special duty to Georgia as a state."99

#### C. PARENS PATRIAE IN SUITS AGAINST THE FEDERAL GOVERNMENT

As Chief Justice Roberts pointed out in his dissent in Massachusetts,<sup>100</sup> a debate continues as to whether parens patriae standing is appropriate in a suit maintained by a state against the federal government. In Massachusetts v. Mellon, the State brought a 10th Amendment challenge to a federal health-care program requiring state implementation.<sup>101</sup> The Court began its discussion of the parens patriae issue by observing: "[W]e are called upon to adjudicate, not rights of person or property, not rights of dominion over physical domain, not quasi-sovereign rights actually invaded or threatened,

<sup>93</sup> Id.

<sup>94 206</sup> U.S. 230, 237 (1907).

<sup>95</sup> Id. at 236.

<sup>96</sup> Id.

<sup>97</sup> Ga. v. Tenn. Copper Co., 206 U.S. 230, 236 (1907) (Harlan, J., concurring).

<sup>98</sup> Id. at 240.

<sup>99</sup> Id.

<sup>100</sup> Mass. v. EPA, 127 S. Ct. 1438, 1466 (Roberts, C.J., dissenting).

<sup>101 262</sup> U.S. 447, 479 (1923).

but abstract questions of political power, of *sovereignty*, of government."<sup>102</sup> Despite this qualification, the Court went on to pontificate more generally on *parens patriae* suits brought against the federal government:\*\*\*

It cannot be conceded that a State, as *parens patriae*, may institute judicial proceedings to protect citizens of the United States from the operation of the statutes thereof. While the State, under some circumstances, may sue in that capacity for the protection of its citizens, it is no part of its duty or power to enforce their rights in respect of their relations with the Federal Government. In that field it is the United States, and not the State, which represents them as *parens patriae*....<sup>103</sup>

Since parens patriae standing by definition arises from a state's ability to assert quasi-sovereign interests, at first blush it seems difficult to reconcile the two passages quoted above. However, these two seemingly inconsistent statements can be harmonized if one looks beyond the pleadings to the heart of the dispute. Parens patriae standing in Mellon was inappropriate because the case revolved around "sovereignty," and therefore the sovereign rights of the state government itself, not the quasi-sovereign rights it held on behalf of its citizens. This fact is evidenced by the state's primary assertion of standing in the case, which was "in its own behalf," due to what it considered an invasion of "the power of local self government reserved to the States." Thus, the State's attempt to sue parens patriae can be viewed as a form of inartful pleading that did not pass muster with the Court.

Although it may have gone beyond what was necessary to resolve the issue in that case, the Mellon Court's categorical rejection of parens patriae standing in suits against the federal government remains. Writing for the majority in Massachusetts, Justice Stevens attempted to limit the scope of that holding by citing to Georgia v. Pennsylvania Railroad Co., 105 in which the Court held that a state may bring suit as parens patriae to enforce federal statutes. 106 However, Justice Stevens failed to acknowledge the crucial distinction that the defendants in Pennsylvania Railroad were private parties, not the federal government. 107 In fact, the Pennsylvania Railroad Court distinguished Mellon in that regard, observing that Mellon made "plain that the United States, not the State, represents the citizens as parens patriae in their relations to the federal government." 108 Justice Stevens seized upon the language of Pennsylvania Railroad describing Mellon as a case in which the State "sought to protect her citizens from the operation of federal statutes," whereas Pennsylvania Railroad (and Massachusetts) involved the State's attempt to assert citizens' rights provided by federal statute. 109 But Justice Stevens conveniently ignored the Pennsylvania Railroad Court's observation that the case before it did not

<sup>102</sup> *Id.* at 484-485 (emphasis added).

<sup>103</sup> *Id.* at 485-486 (emphasis added).

<sup>104</sup> Id. at 480.

<sup>105</sup> Mass. v. EPA, 127 S. Ct. 1438, n. 17 (2007) (citing Ga. v. Pa. R.R., 324 U.S. 439, 447 (1945)).

<sup>106</sup> Pa. R.R., 324 U.S. at 446-447.

<sup>107</sup> See Mass. 127 S. Ct. at 1455.

<sup>108</sup> Pa. R.R., 324 U.S. at 446.

<sup>109</sup> Mass., 127 U.S. at 1455 (quoting Pa. R.R., 324 U.S. at 446).

present "a situation where the United States rather than Georgia stands as parens patriae to the citizens of Georgia." <sup>110</sup>

However, Justice Stevens' argument does find support in the more recent case of *Nebraska v. Wyoming*, decided in 1995, in which the Court permitted Wyoming to assert a cross-claim against the United States to protect its "'quasi-sovereign' interests which are 'independent of and behind the titles of its citizens, in all the earth and air within its domain.'"<sup>111</sup> The *Nebraska* Court did not engage in a thorough standing analysis, nor does any evidence indicate that the Court considered the implications of its prior decision in *Mellon* in assessing Wyoming's claim against the federal government. Nevertheless, *Nebraska* stands as a valid precedent in which the Court recognized *parens patriae* standing in a suit against the federal government.

The Massachusetts Court found the case before it very similar to the dispute in Tennessee Copper, because both suits involved the State's attempt to prevent the emission of noxious gases arising outside of their borders. The Court relied upon Tennessee Copper for the notion that "States are not normal litigants for the purposes of invoking federal jurisdiction." The Massachusetts Court's comparison of the case before it to Tennessee Copper has some merit. Both cases involved actions by a state to prevent pollution originating outside of its jurisdiction from harming its environment and citizens. In his dissent, Chief Justice Roberts argued that Tennessee Copper was not a case about standing, To and in one sense he was correct. Standing doctrine as we understand it today, with the dual components of constitutional and prudential standing, was not fully developed until the latter part of the 20th century. However, Tennessee Copper did involve the issue of whether it was proper for the Court to exercise jurisdiction under Article III, which lies at the heart of standing doctrine.

#### D. CRITICISM OF PARENS PATRIAE AS APPLIED IN MASSACHUSETTS

Even if the comparisons to *Tennessee Copper* are apt and *parens patriae* suits against the federal government are permissible, the *Massachusetts* Court's reliance on *parens patriae* standing as a reason to offer the Commonwealth leniency in the constitutional standing inquiry suffers from some potentially fatal weaknesses. In his dissent, Chief Justice Roberts identified what he considered a fundamental flaw in the majority's reasoning when he observed that *parens patriae* is "merely a species of prudential standing." In *Valley Forge Christian College v. Americans United for Separation of Church and State*, the Court discussed why prudential standing doctrines should be kept distinct from the analysis of constitutional standing:

<sup>110</sup> Ga. v. Pa. R.R., 324 U.S. 439, 446 (1945).

<sup>111 515</sup> U.S. 1, 20 (1995) (quoting Ga. v. Tenn. Copper, 206 U.S. 230, 237 (1907)).

<sup>112</sup> See id.

<sup>113</sup> Mass. v. EPA, 127 S. Ct. 1438, 1452 (2007).

<sup>114</sup> Id.

<sup>115</sup> Id. At 1465 (Roberts, C.J., dissenting).

<sup>116</sup> STRAUSS ET AL., supra note 19, at 1126.

<sup>117</sup> Ga. v. Tenn. Copper, 206 U.S. 230, 207(1907).

<sup>118</sup> Mass., 127 S. Ct. at 1466, n. 1 (Roberts, C.J., dissenting) (quoting Lujan v. Defenders of Wildlife, 506 U.S. 555, 560 (1992)).

[N]either the counsels of prudence nor the policies implicit in the "case or controversy" requirement should be mistaken for the rigorous Art. III requirements themselves. Satisfaction of the former cannot substitute for a demonstration of "distinct and palpable injury" ... that is likely to be redressed if the requested relief is granted. That requirement states a limitation on the judicial power, not merely a factor to be balanced in the weighing of so-called "prudential" considerations.<sup>119</sup>

Applying that same line of reasoning in *Massachusetts*, Chief Justice Roberts argued that because prudential standing is another "hurdle" imposed on state plaintiffs in addition to constitutional standing, "[n]othing about a State's ability to sue [parens patriae] dilutes the bedrock requirement of showing injury, causation, and redressability to satisfy Article III."<sup>120</sup>

It must be acknowledged that Chief Justice Robert's characterization of parens patriae as a form of prudential standing is based on precedent from the D.C. Circuit. 121 However, even though the Court was not bound by the D.C. Circuit's determination, it was clearly breaking new ground when it injected the parens patriae doctrine into its Article III standing analysis. Furthermore, whether parens patriae is labeled as a prudential or constitutional limitation on standing, Chief Justice Roberts correctly observed that the majority's offering of "special solicitude" for states suing parens patriae did not have any foundation in the Court's prior case law. 122 Therefore, the Court's reliance on parens patriae standing as a means of diminishing the rigors of the Article III standing inquiry rests on very weak footing.

Chief Justice Roberts also maintained that *parens patriae* standing was unfounded in *Massachusetts* because, as the majority states, the Commonwealth "has alleged a particularized injury in its capacity as a landowner." The Chief Justice correctly noted that this interest is a "nonsovereign interest." In fact, it is a proprietary interest, as the Court explained in *Alfred L. Snapp & Son v. Puerto Rico ex rel. Barez.* However, the Chief Justice overlooked the fact that in order to assert a quasi-sovereign interest, the State must have a particularized injury of its own that is "sufficiently concrete to create an actual controversy between the State and the defendant." Thus, in *Tennessee Copper* and *Pennsylvania Railroad*, the Court noted that the State had suffered an injury to its proprietary interests that, although minimal, served as a "makeweight" allowing the State to proceed *parens patriae* on behalf of its quasi-sovereign interests. As the *Massachusetts* Court observed, "[t]hat Massachusetts does in fact own a great deal of 'the territory alleged to be affected' only reinforces the conclusion that its stake in the outcome of this case is sufficiently concrete to warrant the exercise of federal judicial

<sup>119 454</sup> U.S. 464, 475 (1982) (internal quotations and citations omitted).

<sup>120</sup> Mass. v. EPA, 127 S. Ct. 1438, 1465 (2007) (Roberts, C.J., dissenting).

<sup>121</sup> Id. at 1466, n.1.

<sup>122</sup> Id.

<sup>123</sup> Mass v. EPA, 127 S. Ct. 1438, 1466 (2007) (Roberts, C.J., dissenting).

<sup>124</sup> Id. (quoting Alfred L. Snapp & Son v. Puerto Rico ex rel. Barez, 458 U.S. 592, 601 (1982))

<sup>125</sup> Snapp, 458 U.S. at 602

<sup>126</sup> Id.

<sup>127</sup> Ga. v. Tenn. Copper, 206 U.S. 230, 237 (1907); Ga. v. Pa. R.R., 324 U.S. 439, 450(1945).

power."<sup>128</sup> Chief Justice Roberts noted that "a State asserting quasi-sovereign interests as *parens patriae* must still show that its citizens satisfy Article III,"<sup>129</sup> but it is clear from the petitioner's assertions that the numerous citizens who also owned coastal lands would suffer the same injuries as the Commonwealth.

Chief Justice Roberts contended that the Court's reliance on *parens patriae* as a source of "special solicitude" in the standing inquiry was "an implicit concession that petitioners cannot establish standing on traditional terms." Whether this alleged concession is true, the Court's use of the *parens patriae* doctrine to weaken the requirements of constitutional standing is dubious at best, and it opens the decision up to serious criticism and potentially undermines its future sustainability.

#### VI. APPLYING DEFENDERS OF WILDLIFE IN MASSACHUSETTS V. EPA

After discussing the *parens patriae* doctrine and the "special solicitude" that it afforded Massachusetts, the Court went on to engage in a conventional constitutional standing analysis of injury in fact, causation, and redressability. The Court began this portion of the opinion by stating that it was "clear that petitioners' submissions as they pertain to Massachusetts have satisfied the most demanding standards of the adversarial process."<sup>131</sup> That statement begs the question: If that were true, then why did the Court feel the need to engage in a strained *parens patriae* analysis to reach the highly suspect conclusion that this status merited "special solicitude" on the part of the Court? Regardless, instead of openly retreating from its holding in *Defenders of Wildlife*, the Court went on to apply the constitutional standing doctrine as prescribed in that case in an unprecedented manner.

#### A. INJURY IN FACT

As the Court stated in *Defenders of Wildlife*, injury in fact is "an invasion of a legally protected interest which is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical." The petitioners presented a wealth of evidence outlining the current and future effects of global warming. First, they submitted a report by the National Research Council (NRC) that the EPA had (ostensibly) relied upon "as an objective and independent assessment of the relevant science" in its decision to deny the rulemaking petition. The NRC Report detailed a number of environmental harms already occurring as a result of climate change, including "the global retreat of mountain glaciers, reduction in snow-cover extent, the earlier spring melting of rivers and lakes, [and] the accelerated rate of rise of sea levels during the 20th century relative to the past few thousand years...." The petitioners also pre-

<sup>128</sup> Mass., 127 S. Ct. at 1454 (majority).

<sup>129</sup> Mass. v. EPA, 127 U.S. 1438, 1465 (2007) (Roberts, C.J., dissenting).

<sup>130</sup> Id. at 1466.

<sup>131</sup> Id. at 1455 (majority).

<sup>132</sup> Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992) (internal citations omitted).

<sup>133</sup> Mass. v. EPA, 127 S. Ct. 1438, 1455-56 (2007).

<sup>134</sup> Id. at 1455 (citation omitted).

<sup>135</sup> Id.

sented testimony from a climatologist who warned of other impending environmental harms, including exacerbation of the conditions laid out in the NRC Report, "severe and irreversible changes to natural ecosystems," heightened potential for epidemics, and more intense tropical storm systems.<sup>136</sup>

Next, the Court considered the petitioners' assertions as to how these global effects caused an injury in fact to Massachusetts. The Court began by noting that the fact that these "climate change risks are 'widely-shared' does not minimize Massachusetts' interest in the outcome of this litigation." First, as evidence of the actual injury being sustained by the Commonwealth, the Court referenced the petitioners' affidavits, which were uncontroverted by the EPA, claiming that "global sea levels rose somewhere between 10 and 20 centimeters over the 20<sup>th</sup> century as a result of global warming." In regards to imminent injury, the Court focused on the physical and economic impacts that rising sea levels and increased storm surge would have on properties, businesses, and infrastructure that the Commonwealth owned and operated along the Atlantic coast. Based on these facts, the majority concluded that the "EPA's steadfast refusal to regulate greenhouse gasses emissions presents a risk of harm to Massachusetts that is both 'actual' and 'imminent'." Identity of the court focused on these facts, the majority concluded that the "EPA's steadfast refusal to regulate greenhouse gasses emissions presents a risk of harm to Massachusetts that is both 'actual' and 'imminent'."

In his dissent, Chief Justice Roberts asserted that the harms alleged to result from global climate change were so widespread that by definition they could not be particularized in the manner required for injury in fact.<sup>141</sup> However, as the majority pointed out, this theory was directly at odds with the Court's holding in SCRAP, a case that later courts had much-maligned but never overturned: "To deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody. We cannot accept that conclusion."<sup>142</sup> As to whether Massachusetts had suffered an "actual" injury, the Chief Justice dismissed the evidence presented pertaining to rising sea levels as "pure conjecture."<sup>143</sup> In regards to the imminence of impending injuries, he asserted that characterizing a phenomenon that is measured in a rise of centimeters over centuries as "imminent" rendered that term "utterly toothless."<sup>144</sup>

If the Court had applied the injury in fact test as rigidly as it did in *Defenders of Wildlife*, the petitioners here would have failed on this component of the constitutional standing inquiry. Massachusetts' alleged injuries to its coastal properties were "particularized" in the sense that they were unique regardless of what other effects global warming was having in other parts of the world. However, under a strict interpretation of *Defenders of Wildlife*, it is highly questionable as to whether they were either actual or imminent. Although the petitioners did present credible evidence that sea levels

<sup>136</sup> Id. (citation omitted).

<sup>137</sup> Id. at 1456.

<sup>138</sup> Id.

<sup>139</sup> Id.

<sup>140</sup> Id. at 1455 (quoting Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992)).

<sup>141</sup> *Id.* at 1467 (Roberts, C.J., dissenting).

<sup>142</sup> Id. at 1458, n. 24 (majority) (quoting U.S. v. Students Challenging Regulatory Agency Procedures (SCRAP), 412 U.S. 669, 688(1973)).

<sup>143</sup> Id. at 1467 (Roberts, C.J., dissenting).

<sup>144</sup> Id. at 1467-68.

have risen in the last century, the injuries that they alleged were primarily those that would occur in the future should the government fail to take action. Thus, the actual submersion of coastal lands that petitioners claimed to have occurred since the EPA denied their petition for rulemaking in 2003 was by legal standards *de minimis*.

The heart of the petitioners' alleged injuries were those that could potentially result should global warming continue unabated. Therefore, the crux of the injury in fact inquiry hinged upon whether these alleged injuries were "imminent" under the standards set forth in *Defenders of Wildlife*. Imminence can be broken down into two elements: the certainty of a future event's occurrence and the immediacy with which it will transpire. In *Defenders of Wildlife*, the Court rejected the plaintiff's claim of imminent injury because it was unclear both *if* and *when* its alleged injuries would materialize.<sup>145</sup> The *Defenders of Wildlife* Court outlined its understanding of the "imminence" requirement:

Although "imminence" is concededly a somewhat elastic concept, it cannot be stretched beyond its purpose, which is to ensure that the alleged injury is not too speculative for Article III purposes – that the injury is "certainly impending." It has been stretched beyond the breaking point when, as here, the plaintiff alleges only an injury at some indefinite future time.... In such circumstances we have insisted that the injury proceed with a high degree of immediacy, so as to reduce the possibility of deciding a case in which no injury would have occurred at all. 146

The petitioners in Massachusetts seem to have failed to show that the catastrophic injuries that they predicted would occur with the "high degree of immediacy" required under Defenders of Wildlife. Therefore, the Court would have been justified in denying standing to the petitioners in Massachusetts for lack of injury in fact under the standards laid out in Defenders of Wildlife.

#### **B.** CAUSATION

The causation element of standing requires that the injury be "fairly ... traceable to the challenged action, and not ... the result [of] independent action of some party not before the court." <sup>147</sup> The Court began its causation analysis by noting that the EPA did not challenge the fact that a "causal connection" existed between anthropogenic greenhouse gasses (GHGs) and climate change. <sup>148</sup> Instead, the EPA argued that emissions from new motor vehicles represented only a small fraction of the sources contributing to global warming, and therefore, any attempt to regulate them would do little to prevent global climate change and consequently the alleged injuries to the petitioners. <sup>149</sup> The Court cast aside the first premise of this contention by citing evidence that the petitioners presented that indicated that motor vehicles in the United States contribute over six percent of global CO<sub>2</sub> emissions, an amount which alone would make this country the third-largest emitter of CO<sub>2</sub> in the world. <sup>150</sup> The Court also

<sup>145</sup> Lujan v. Defenders of Wildlife, 504 U.S. 555, 564(1992)).

<sup>146</sup> Id. at 564, n. 2 (internal citation omitted).

<sup>147</sup> Defenders of Wildlife, 504 U.S. at 560.

<sup>148</sup> Mass., 127 S. Ct. at 1457 (majority).

<sup>149</sup> Id.

<sup>150</sup> Id. at 1457.

rejected the EPA's assertion that its decision not to regulate could not be challenged in federal court because limiting motor vehicle GHG emissions would be futile in the face of such a widespread phenomenon. <sup>151</sup> The Court admonished: "Agencies, like legislatures, do not generally solve massive problems in one fell swoop." <sup>152</sup>

Chief Justice Roberts accused the majority of "ignor[ing] the complexities of global warming" and "using the dire nature of global warming itself as a bootstrap for finding causation and redressability." He pointed out that American motor vehicles produce (a mere) four percent of total GHG emissions in the world, and only a small portion of those would be reduced by regulations of new motor vehicles. In his view, the causes of global warming were so varied and complex that the petitioners could not "trace their alleged injuries back through this complex web to the fractional amount of global emissions that might have been limited with EPA standards." Therefore, Massachusetts' attempts to connect the EPA's failure to regulate with its loss of coastal lands were "far too speculative to establish causation."

In spite of the concerns that the Chief Justice expressed, causation is the least troubling element of the majority's standing analysis in this case. As the EPA admitted, motor vehicle emissions in the United States contribute to anthropogenic GHGs that in turn cause global warming. That fact should be the end of the causation inquiry. To use the words of Justice Scalia in *Defenders of Wildlife*, the gist of the agency's argument was that the alleged injuries are not "fairly traceable" to its failure to regulate motor vehicles, because they largely stem from emissions emanating from other domestic and worldwide sources of GHGs, all of which are "the result [of] independent action of some party not before the court." This argument may be pertinent to redressability, but the fact that other sources contribute to the petitioners' alleged injuries cannot somehow negate the EPA's role in compounding the problem. The EPA's arguments regarding the ineffectiveness of any efforts to limit motor vehicle emissions were more relevant to redressability than causation.

#### C. REDRESSABILITY

Finally, to meet the last requirement of constitutional standing, "it must be 'likely,' as opposed to merely 'speculative,' that the injury will be 'redressed by a favorable decision." <sup>158</sup> At the outset, the Court acknowledged that it was unlikely that regulating domestic motor vehicle GHG emissions alone would reverse the effects of global climate change, but it rejected the notion that this prevented federal jurisdiction "to decide whether EPA has a duty to *slow* or *reduce* it." <sup>159</sup> The EPA argued that increased emissions from other nations around the world, especially India and China, would make the EPA's regulation of motor vehicles in the United States inconsequential, but

<sup>151</sup> Mass. v. EPA, 127 S. Ct. 1438, 1457 (2007).

<sup>152</sup> Id. at 1468-69.

<sup>153</sup> Id. (Roberts, C.J., dissenting).

<sup>154</sup> Id. at 1469.

<sup>155</sup> Id.

<sup>156</sup> Id.

<sup>157</sup> Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992).

<sup>158</sup> Id. at 561.

<sup>159</sup> Mass v. EPA, 127 S. Ct. 1438, 1458 (2007) (majority) (emphasis in original).

the Court disagreed: "A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere." <sup>160</sup> The Court also observed that the EPA's support for the Bush Administration's efforts to institute a voluntary emissions-reduction program undermined any arguments it put forward contending that incremental steps to reduce emissions would not produce any measurable effect on global warming. <sup>161</sup> In sum, the Court reasoned that the "risk of catastrophic harm" posed by global warming "would be reduced to some extent if petitioners received the relief they seek." <sup>162</sup> Therefore, the Court ultimately concluded that the petitioners had standing to bring suit against the EPA. <sup>163</sup>

Again, Chief Justice Roberts was at odds with the majority. He pointed to the evidence that the EPA presented that emissions from new motor vehicles represent only a small fraction of domestic emissions, eighty percent of the world's GHG emissions arise outside of its jurisdiction, and any small reduction of motor vehicle emissions in the United States would be far outpaced by increased emissions from developing countries.<sup>164</sup> The Chief Justice summarized the petitioners' assertions concerning redressability as follows:

[D]o not worry that other countries will contribute far more to global warming than will U.S. automobile emissions; someone is bound to invent something, and places like the People's Republic of China or India will surely require the use of the new technology, regardless of cost.<sup>165</sup>

Although somewhat belittling, the passage did encapsulate the thrust of the petitioners' argument: regulation would spark domestic innovation, and the United States would use its diplomatic and economic powers to convince other developing nations around the world to institute reductions in GHG emissions. <sup>166</sup> However, to be fair, nowhere did the petitioners suggest that cost would not factor into the decisions of foreign nations. Rather, they proposed that the United States would be able to impose a more exacting price on these countries should they defy its diplomatic pressure. Chief Justice Roberts argued that these speculative arguments fell well short of proving it was "likely" that regulating motor vehicle emissions would remedy the injuries to Massachusetts' coastal property, and therefore, he concluded that the petitioners failed the redressability component of constitutional standing as well. <sup>167</sup>

As was the case in its injury in fact analysis, the majority applied the principles of constitutional standing as defined in *Defenders of Wildlife* very liberally on the issue of redressability. While the Court correctly concluded that reducing emissions from motor vehicles in the United States would reduce global GHG emissions, the petitioners failed to show that this reduction would be "likely" to prevent Massachusetts' future

<sup>160</sup> Id.

<sup>161</sup> Id.

<sup>162</sup> Id.

<sup>163</sup> Id.

<sup>164</sup> Id. at 1469 (Roberts, C.J., dissenting).

<sup>165</sup> Id. at 1470.

<sup>166</sup> Id. at 1469.

<sup>167</sup> Id. at 1470.

injuries due to rising sea levels. In *Defenders of Wildlife*, the Court found redressability lacking, in part, because the federal agency in question provided only a small portion of the funding for a project that threatened the endangered species whose loss would harm the plaintiffs.<sup>168</sup> As a result, the Court found it "entirely conjectural whether the non-agency activity that affects respondents will be altered or affected by the agency activity they seek to achieve."<sup>169</sup> The petitioners' situation in *Massachusetts* is closely analogous. Although they may have hoped that the EPA's regulation of motor vehicle emissions would lead to new technologies and reductions in GHG emissions from other domestic and foreign sources, at the time of the case it was all speculation. Thus, under a faithful reading of *Defenders of Wildlife* without the "special solicitude" offered for states suing *parens patriae*, the petitioners in *Massachusetts* failed to show that a favorable decision from the Court would prevent their coastal lands from being harmed due to global warming.

#### VII. CONCLUSION: SOME FINAL THOUGHTS

#### A. IMPLICATIONS FOR FUTURE LITIGANTS

The Court's ruling on the issue of standing in Massachusetts v. EPA marked a serious departure from its earlier holding in Defenders of Wildlife, and in time it may come to be seen as a move back towards the more lenient standing requirements exemplified by its decision in SCRAP. While Massachusetts may have been a victory in the battle over global warming, in the end, the Court's use of the parens patriae doctrine in a questionable manner may limit the decision's value as a precedent. The majority's interpretation of parens patriae standing as a source of special solicitude in the Article III standing inquiry is a vulnerable point on which a future court might distinguish or even overrule Massachusetts. Nevertheless, it may also prove to be extremely important case for future state entities seeking to redress environmental wrongs, especially in the context of global warming.

That result has not been the case so far in Texas. As of the writing of this article, only one published Texas case has addressed the implications of *Massachusetts* for the standing of state entities. In *City of Dallas v. Hall*, the City of Dallas attempted to overcome prudential standing requirements by asserting its quasi-sovereign interest in protecting the water supply of its citizens.<sup>170</sup> The defendants argued that Dallas did not fall within the "zone of interests" that Congress intended to protect in the statute upon which the City relied.<sup>171</sup> The zone of interests test is a prudential limitation on standing that federal courts may invoke to avoid deciding cases in which they feel that the plaintiff is not the proper party to be bringing suit.<sup>172</sup> Dallas attempted to use *parens patriae* as outlined in *Massachusetts* to overcome the prudential requirements of the zone of interests test.<sup>173</sup> However, the court rejected Dallas' reliance on *Massachusetts* altogether, because it interpreted *Massachusetts* to be a case about constitutional

<sup>168</sup> Lujan v. Defenders of Wildlife, 504 U.S. 555, 571 (1992).

<sup>169</sup> Id.

<sup>170 2007</sup> U.S. Dist. LEXIS 78847, at \*25 (Tex. App.-Dallas, Oct. 24, 2007).

<sup>171</sup> Id. at \*23.

<sup>172</sup> Assn. of Data Processing Serv. Orgs., Inc. v. Camp, 397 U.S. 150, 153 (1970).

<sup>173 2007</sup> U.S. Dist. LEXIS 78847, at \*25.

standing, not prudential standing.<sup>174</sup> This interpretation is consistent with the Massachusetts majority's application of the parens patriae doctrine in its Article III standing analysis, which the Chief Justice criticized in his dissent, and which this author criticized in this note. Nevertheless, regardless of whether it was proper to consider parens patriae in the context of constitutional rather than prudential standing, lower federal courts are bound by the majority opinion. Based on this case, it may prove difficult for the State of Texas or any of its political subdivisions to overcome prudential standing limitations by relying on Massachusetts. However, it remains to be seen what effect Massachusetts will have on state entities in Texas seeking to establish constitutional standing.

#### B. AN OPPORTUNITY LOST

Massachusetts presented the Court with an opportunity to reconsider the propriety of its earlier decision in Defenders of Wildlife, but the Court declined to do so. For fifteen years, Defenders of Wildlife and its rigorous standards for establishing constitutional standing have served as a barrier preventing numerous beneficiary plaintiffs from forcing federal agencies to implement environmental statutes according to the mandates that Congress has lain out. Throughout the evolution of standing doctrine, the Court has emphasized its importance as a means of enforcing the principle of separation of powers as established in Articles II and III of the Constitution. But, what is conspicuously absent from the Court's standing analysis is any discussion of Article I, which vests the power to make our nation's laws in the Legislative Branch. Under the standing doctrine announced in Defenders of Wildlife, agencies have been able to "lose and misdirect" congressional statutes for many years with little interference from the courts. Justice Scalia thinks that the Executive represents the will of the people, but I, for one, believe that the Legislature more closely embodies the hopes and desires of the citizenry in a republican government.

In this author's view, instead of creating a loophole for states suing parens patriae, it would have been preferable had the Massachusetts Court rejected the systematic bias that Defenders of Wildlife promotes against beneficiary plaintiffs. Although rooted in Article III of the Constitution, standing doctrine is really only a judicial construct meant to interpret the words "case" or "controversy." Surely the Framers never meant for the judiciary to provide a shield behind which the Executive might willingly undermine the laws that the Legislative Branch enacted. In the face of the potentially dire consequences posed by global warming, states do have an interest that is worth vindicating in federal court, even if the harm has not become sufficiently imminent or concrete enough yet to meet the stringent standards established by the Court fifteen years ago in Defenders of Wildlife.

In sum, the Court's decision in *Massachusetts* is relatively weak when considered in light of *Defenders of Wildlife*. That being said, the Supreme Court is the highest court in the land, and it has the last say on "what the law is." Only time will tell what sort of impact the *Massachusetts* decision will have on the future of federal jurisprudence. One can only hope that it will pave the way for future plaintiffs seeking to hold federal

<sup>174</sup> Id. at \*26.

<sup>175</sup> Marbury v. Madison, 5 U.S. 137, 177 (1803).

agencies to the statutory mandates promulgated by Congress with the goal of making our country a cleaner and safer nation in which to live.

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#### SOLID WASTE

## TEXAS CITIZENS FOR A SAFE FUTURE AND CLEAN WATER V. RAILROAD COMMISSION OF TEXAS AND ITS BROADENING OF "THE PUBLIC INTEREST"

Texas Citizens for a Safe Future and Clean Water and its chairman, James G. Popp, collectively known as "Texas Citizens," appealed a district court judgment upholding the Railroad Commission of Texas' ("the Commission") decision to give a permit to Pioneer Exploration, Ltd. ("Pioneer") to "operate a commercial injection well for the disposal of oil and gas waste." Texas Citizens for a Safe Future and Clean Water v. Railroad Com'n of Texas, No. 03-07-00025-CV, 2007 WL 4269869, at \*1 (Tex. App.-Austin Dec. 06, 2007, no pet. h.). Texas Citizens argued that by granting the permit, the Commission denied Texas Citizens due process and failed to satisfactorily consider the public interest. *Id.* Although the Texas Court of Appeals, Third District, at Austin, held that the Commission did not deny Texas Citizens due process, the court did determine that the Commission's definition of "the public interest" was too narrow. *Id.* The Court remanded the case to the Commission for reconsideration of the permit, instructing the Commission to encompass more than just the conservation of natural resources in its definition of "the public interest." *Id.* 

A Railroad Commission contested case hearing was commenced in May of 2005 due to Texas Citizens' opposition to Pioneer's application for a permit to convert an old gas well in Wise County, Texas, into a commercial well that would use underground injection to dispose of oil and gas waste. *Id.* After conflicting testimony from the applicant and the protestants as to the location of wells within a quarter-mile radius of the proposed well, the Commission recessed the hearing to give Pioneer the chance to supply the Commission's staff with more details regarding the well. *Id.* at 2. Between May of 2005 and the next hearing in October of 2005, Pioneer completed a list of items required to complete its application, provided the Commission with supplemental information, and performed a radial cement squeeze on the well. *Id.* Upon reviewing the supplemental information, the Commission declared Pioneer's

application to be complete. The Commission ultimately adopted the Administrative Law Judge's Proposal for Decision a permit. *Id.* 

In arguing that they were denied procedural due process rights, Texas Citizens asserted that the hearing should have been terminated as soon as the Commission determined that Pioneer's application was not complete. *Id.* at 3. Because the hearing examiners allowed Pioneer to amend its application and move the hearing to October, Texas Citizens asserted that procedure was not properly followed, and that it was denied procedural due process rights. *Id.* The court rejected this argument, stating that the supplemental filing was accepted because Pioneer had not used up its two supplemental filing opportunities allowed by 16 Tex. Admin. Code §1.201. *Id.* The court also noted that Texas Citizens had been given an "ample opportunity" to present any evidence it wanted to present at both the May and October hearings. *Id.* at 4. Finally, the court noted that Texas Citizens benefited from its decision to allow the October hearing because it avoided "an unnecessary repetition of the agency proceedings on a refiled application." *Id.* 

To issue an injection well permit, the Commission must determine that the use or injection of the well is in the "public interest." *Id.* (*citing* Tex. Water Code Ann. § 27.051(b)(1)). Texas Citizens argued that the Commission defined "the public interest" too narrowly by focusing solely on whether the well would increase the recovery of oil and gas. *Texas* Citizens, 2007 WL at \*4. Additionally, Texas Citizens argued that the public interest should encompass more than just the increase in the recovery of oil and gas, and include public safety issues, such as the public's concern that "trucks hauling saltwater waste would frequently be accessing the well site using narrow, unpaved roads," *Id.* at 5.

Pioneer argued that traffic issues are not within the Commission's jurisdiction but are instead within the jurisdiction of other agencies. *Id.* Pioneer supported its argument by pointing out that the Commission's injection-well-permitting requirements, unlike the requirements of the Texas Commission on Environmental Quality (TCEQ), do not require a reasonable effort to ensure that the burden imposed on public roadways will be minimized. *Id.* at 7. Pioneer also looked to *Grimes v. State* to determine that the recovery of oil and gas is something that should be considered when determining the public interest. *Id.* at 6 (citing *Grimes v. State*, No. 03-04-00154-CV, 2005 WL 2043842 (Tex. App.-Austin 2005, no pet.) (not designated for publication)).

The court rejected these arguments for various reasons. Texas Citizens, 2007 WL at \*6. The court noted that while Grimes did suggest that the recovery of oil and gas could be considered when determining the public interest, it did not say that this consideration should be the only one. Id. The court did not accept Pioneer's argument that public roadways were not within the Commission's jurisdiction, stating that "practically all matters of public safety are regulated by some governmental agency," and that the Commission could not be foreclosed from considering any matter that falls within the jurisdiction of another governmental agency when making public interest determinations. Id. at 8. Finally, the court noted that the requirement that the TCEQ considers the burden on public roadways is only applicable when addressing hazardous waste injection wells that are not located in areas of industrial land use. Id. at 7. This requirement did not imply, as Pioneer suggested, that the TCEQ could dismiss all other public interest concerns having to do with public roadways, or that the Commission could ignore traffic-related problems affecting the public interest. Id.

The court emphasized that the instruction for the Commission to consider "the public interest" was a "broad mandate." Id. at 8. Therefore, in remanding the case to the Commission for reconsideration of the permit, the court instructed the Commission to encompass a wider range of factors in determining "the public interest." Id. at 9. This emphasis on broadening the definition of "the public interest" is certain to affect future permitting cases at the Railroad Commission of Texas and at the TCEQ. The administrative agencies will now need to grapple with what is encompassed in the definition of "the public interest." Before this case, the agencies and the public did not have any "controlling precedent interpreting what considerations the Commission may weigh when determining whether a proposed injection well is in the public interest under Tex. Water Code § 27.051(b)(1)." Id. at 5. Texas Citizens set that precedent, stating that "the public interest" includes public safety concerns "where evidence of such concerns has been presented." Id. at 9. Although agencies have wide discretion in determining what factors to consider when deciding whether the public interest is served, they will no longer be able to satisfy the public interest mandate by merely showing that their granting of a permit will conserve natural resources. Future case law may further clarify just what is encompassed in the mandate that agencies consider "the public interest."

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#### WATER QUALITY & UTILITIES

#### 2006 TEXAS WATER QUALITY INVENTORY AND 303(D) LIST

Every two years, Texas is required to submit a water quality assessment to the United States Environmental Protection Agency (EPA) detailing the extent Texas's surface waters meet their relevant water quality standards. Clean Water Act §§ 303, 305, 33 U.S.C. § 1313, 1315 (2000). The Texas Commission on Environmental Quality (TCEQ) publishes this assessment, the Texas Water Quality Inventory and 303(d) List (Assessment), on its web site. Tex. Comm'n on Envtl. Quality, 2006 Texas Water Quality Inventory and 303(d) List, available at http://www.tceq.state.tx.us/assets/public/compliance/monops/water/06twqi/2006\_303d.pdf (last visited April 24, 2008) ("Texas Water Quality Inventory"). The Assessment contains two parts: the Inventory, which gives the status of all state waters, and the 303(d) List, which identifies waters not achieving their relevant water quality standards. Tex. Comm'n on Envtl. Quality, Preserving & Improving Water Quality 11 (2006), available at http://www.tceq.state.tx.us/files/gi-351.pdf\_4234276.pdf (last visited April 24, 2008) ("Preserving & Improving Water Quality"). Different stakeholder organizations

collect data following approved water quality control guidelines and sample collection procedures over the previous five years. *Id.* The TCEQ then uses this data and approved methods to develop the Assessment. *Id.* These methods are detailed in the 2006 Guidance for Assessing and Reporting Surface Water Quality in Texas. Tex. Comm'n on Envil. Quality, 2006 Guidance for Assessing and Reporting Surface Water Quality in Texas, *available at* http://www.tceq.state.tx.us/assets/public/compliance/monops/water/06twqi/2006\_guidance.pdf. The Assessment is not considered final until the EPA approves it. Tex. Comm'n on Envil. Quality, Texas Water Quality Inventory and 303(d) List, *available at* http://www.tceq.state.tx.us/compliance/monitoring/water/quality/data/wqm/305\_303.html (last visited April 24, 2008). The EPA approved the 2006 Assessment on February 8, 2008. Tex. Comm'n. on Envil. Quality, 2006 Texas Water Quality Inventory and 303(d) List, *available at* http://tceq.state.tx.us/compliance/monitoring/water/quality/data/06twqi/twqi(06).html (last visited April 24, 2008).

The main difference between the 2006 Assessment and previous Assessments is the amount of data collected. The 2006 Assessment surveyed 925 water bodies. Texas Comm'n on Envil. Quality, Summary of the Assessment and 2006 303(d) List 3 (2007), available at http://www.tceq.state.tx.us/assets/public/compliance/monops/ water/06twqi/2006\_exec\_summ.pdf (last visited April 24, 2008). This number of water bodies represents a 26 percent increase over 2004. Id. at 3. This increase is primarily due to new data contributed by the Clean Rivers Program partner and their local cooperators. Id. Corresponding with the increase in surveyed waters, the number of 303(d) List impairments increased by 31 percent. Id. However, it is important to note that some water bodies have more than one impairment. Id. Overall, bacteria impairments represented the largest increase at about 60 percent. Id. This drastic increase may be at least partially explained by realizing most of the newly surveyed water bodies are small streams and they often do not support the criteria for bacteria. Id. Also a large increase occurred in biological listings. Id. Much of this data was made available via separate studies evaluating the health of aquatic communities. *Id.* On the other hand, 77 impairments were removed from the list representing a 126 percent increase over 2004. Id. Most of these removals are identified as meeting criteria due to more complete and accurate data sets. Id.

Even with the increase in listed impairments, the effects of the transition to the 2006 Assessment should be minor. Listing can have immediate implications for facilities that discharge wastewater into listed water bodies. Preserving & Improving Water Quality, at 12. For example, the TCEQ could limit or even ban any new or expanded discharges of a listed pollutant into the water body if it would contribute to the impairment. *Id.* However, this response is unlikely for two reasons. First, many of the new impairments are for bacteria. As long as a discharging facility is designed to provide adequate disinfection (via chlorine or another approved method), the discharge should not contribute to the bacterial impairment of the water body. Second, not enough data is yet available to develop a restoration plan for the newly listed water bodies. Texas Water Quality Inventory, at 1. Thus, the TCEQ is waiting until more data is available before determining a course of action.

A second, minor difference between the 2006 Assessment and previous Assessments is the area description. The 2006 Assessment has introduced a numerical assess-

ment identifier in conjunction with the narrative description. *Id.* However, the TCEQ currently appears to be continuing to rely only on the narrative description.

The 2008 assessment process is underway. The Public Comment period was held from December 21, 2007 to January 31, 2008. Tex. Comm'n on Envil. Quality, 2008 Texas Water Quality Inventory and 303(d) List, available at http://www.tceq.state.tx.us/compliance/monitoring/water/quality/data/08twqi/twqi08.html (last visited April 24, 2008). The 2008 Assessment was heard on March 19, 2008. *Id.* Public comments, TCEQ responses, and changes to the draft since the Public Comment period will be posted on the TCEQ web site. *Id.* 

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#### WATER RIGHTS

### FEDERAL AND STATE ENTITIES BATTLE OVER LAND IN THE UPPER NECHES RIVER AREA

In June of 2006, the Fish and Wildlife Service (Fish & Wildlife) designated 25,281 acres as the Neches River National Wildlife Refuge. Associated Press, Fish and Wildlife Service Announces Wildlife Refuge in NE Texas, FORTH WORTH STAR-TELEGRAM, June 13, 2006, available at http://www.texaswatermatters.org/pdfs/news\_306.pdf [hereinafter Wildlife Refuge in NE Texas]. The Refuge will stretch for thirty-eight miles along the Neches River and sit within Anderson and Cherokee Counties in northeast Texas, pending the availability of funds to purchase the land. Id. Fish & Wildlife made this designation based in part on its observation that the bottomland hardwoods and wetlands in the area were vital for mallards, dabbling ducks, and wood ducks. Id. The bobcat, river otter, and threatened American alligator will also be protected within the area. Id. Environmental groups applauded this Fish & Wildlife decision. Id. Residents of rural East Texas were pleased that the Fish & Wildlife Service recognized the need to protect the Neches River that provides recreation and tourism income to the area. Georgia Purdy, East Texans Voice Concerns Over Fastrill Project, The Jasper Newsboy, Oct. 1, 2006, available at http://www.texaswatermatters.org/pdfs/ news\_352.pdf.

This news was not good news to everyone, however. At the same time that Fish & Wildlife was conducting research and analysis concerning the proposed refuge, the City of Dallas ("the City") was making other plans for the land, and the Texas Water Development Board (TWBD) was including the Fastrill Reservoir in its State Plan's recommendations for "unique reservoir sites." Wildlife Refuge in NE Texas at 1; Texas Water Development Board, 2007 State Water Plan, 267-68, (adopted Nov. 14, 2006). North Texas expects to nearly double its population by 2050, and the City of Dallas anticipates needing 262 gallons per capita per-day by 2020, according to the TWDB's

2007 State Water Plan. Stephanie Jeter, Communities Show Support for Wildlife Refuge, Tyler Morning Telegraph, Aug. 19, 2006, available at tylerpaper.com (Search: Neches River National Wildlife Refuge). Thus, in April of 2006, two months before the Fish & Wildlife Service's designation, the TWBD approved a long-range regional plan to build the Fastrill Dam on the Neches River in order to supply water to the Dallas-Fort Worth area. Wildlife Refuge in NE Texas at 1. The TWDB also recommended that the Texas Legislature designate this site as unique reservoir site under subsection (g) of Section 16.051 of the Texas Water Code. This designation means that the site is valuable for reservoir development and that a state agency or political subdivision cannot obtain fee title or an easement that would preclude construction of the reservoir. Tex. Water Code § 16.051(g).

Although this approval did not in any way guarantee construction of the Fastrill reservoir, the designation of the land as a national wildlife refuge precluded the building of the reservoir. Wildlife Refuge in NE Texas. This prompted the general manager of the Upper Neches River Municipal Water Authority to assert that Fish & Wildlife did not take into account the demand of public water needs. Sarah Foley, Wildlife Refuge Approved, Tyler Morning Telegraph, June 12, 2006, at A1. "When the shortage occurs, it's too late to do something about," he commented. Id. Foreshadowing what would become a values clash between rural East Texans and metropolitan Dallas over the use of the land, the co-chairman of Friends of the Neches River, responded, "Now [Dallas residents] have a place to come and enjoy the green space. They have had enough water and they didn't need this." Id.

Whatever may be the opinions of others, Dallas officials believe that they do need the water. In March of 2005, the Dallas City Council passed a resolution approving consideration for the Fastrill Reservoir and expressed a desire to work cooperatively with Fish & Wildlife to determine if the Fastrill Reservoir could meet the dual objectives of water supply and wildlife preservation. *Dallas and Texas Water Development Board v. Fish and Wildlife Service*, 2007 U.S. Dist. LEXIS 78847 at 11 (N.D. Texas, Dallas Div., Oct. 24, 2007). The director of Dallas Water Utilities sent a letter to Fish & Wildlife' Regional Chief of the National Wildlife Refuge System requesting that Fish & Wildlife postpone the Refuge proposal to allow a study to determine the feasibility of accomplishing both objectives. *Id*.

That month, Fish & Wildlife released a proposal to establish the Refuge. *Id.* In accordance with the National Environmental Policy Act (NEPA), Fish & Wildlife prepared an Environmental Assessment (EA) and included a Finding of No Significant Impact (FONSI). *Id.* at 12. The report stated that the Fastrill Reservoir was "speculative in the short term, not definitive in scope and purpose, and far beyond the planning horizon of the Refuge proposal." *Id.* at 13. Because of the indefinite nature of the reservoir, Fish & Wildlife concluded that the Refuge would have "no significant impact on the human environment." *Id.* at 12-13. Accordingly, the Fish & Wildlife did not include in its proposal or EA an alternative that would allow the Fastrill Reservoir and the Refuge to co-exist. *Id.* at 12. The EA was promptly submitted to the Director of Fish & Wildlife for his approval. *Id.* at 13.

Late in 2005, local and state officials wrote to the Director of Fish & Wildlife asking him to delay approval of the FONSI pending completion of the City's feasibility study. *Id.* In 2005, the Texas Senate passed a resolution recognizing the need for additional water resources in Dallas and identified the Fastrill Reservoir project as a

critical resource to help meet that need. *Dallas and Texas Water Development Board v. Fish and Wildlife Service*, 2007 U.S. Dist. LEXIS 78847 at 13 (N.D. Texas, Dallas Div., Oct. 24, 2007). In 2007, the Legislature made a last minute tag-on to Senate Bill 3, designating the Neches River as a unique reservoir site. Georgia Purdy, *Fastrill Back on Radar Again*, The Jasper Newsboy, Jun. 6, 2007, *available at* http://www.texaswatermatters.org/pdfs/news\_412.pdf.

While considering the Refuge proposal, the Director of Fish & Wildlife agreed to meet with reservoir proponents in April of 2006 to try to develop a plan that would enable both projects to co-exist. *Dallas and Texas Water Development Board*, 2007 U.S. Dist. LEXIS 78847 at 14. The Director told the proponents that they would have until June 1, 2006 to present a viable alternative to the Refuge plan. *Id.* As of June 1, the reservoir proponents had not proposed a viable alternative, and ten days later, the Direct approved the EA and the FONSI, thereby creating the Refuge. *Id.* 

Fish & Wildlife began rapidly acquiring land for the refuge, and received a one acre conservation easement from the Younts, co-defendants with Fish & Wildlife in this case, as a donation. *Id.* Promptly, the City and the TWBD (the plaintiffs) filed separate suits against Fish & Wildlife (the defendant) in January of 2006. *Id.* at 3. The plaintiffs consolidated their suits and sought reversal of the Fish & Wildlife' decision to establish the Refuge on several grounds. *Id.* at 3-4. The plaintiffs claimed that the City and State had been contemplating for decades their plans to build a reservoir on the site. *Id.* at 5. Despite knowing this "fact," they argued, Fish & Wildlife established the Refuge in bad faith and without complying with the relevant statutory requirements. *Id.* at 5. Fish & Wildlife' filed three motions to dismiss for failure to state a claim with regard to several of the plaintiffs' claims. *Id.* at 2. In October of 2007, the motions came before the federal district court. The court granted Fish & Wildlife's motions, finding that the plaintiffs did not have standing and did not state a proper claim. *Id.* 

The City asserted, inter alia, that the donated one-acre easement is void *ab initio* as contrary to the purposes of the Refuge and the National Wildlife Refuge System Administration Act (NWRSAA). *Id.* at 18. It further claimed that Fish & Wildlife failed to acquire water rights in advance of acquiring property in violation of the NWRSAA, and thus the Fish & Wildlife' attempt to establish the Refuge is void. *Id.* The court disagreed and noted that a plaintiff challenging an administrative agency's decision bears the burden of showing that the interest sought to be protected is arguably within the "zone of interests" that Congress intended the statute to protect. *Id.* at 23. Looking to the NWRSAA, the court found that the statute's mission is "to administer a national network of lands and waters for the conservation, management, and...restoration of fish, wildlife and plant resources and their habitats." *Id.* at 24. The statute does not contain any provision, the court observed, to indicate Congress designed it to protect the City's interest in constructing a reservoir. *Id.* at 27. The court concluded that the City lacked standing to bring this claim because its competing interest in the land did not fall within the zone of interest that the statute protects. *Id.* at 28.

The City further claimed that Fish & Wildlife exceeded its authority when it acquired the one acre easement and that the government's actions did not serve any legitimate public purpose because its intent was to commandeer the City's water planning resources and prevent the construction of the reservoir. *Id.* at 31. Moreover, the City claimed that Fish & Wildlife violated the City's constitutional right to secure

a sufficient water supply for its residents in violation of the Tenth Amendment and abrogated the City's sovereign power over its water rights. *Id.* The court noted that the City did not provide any authority to support its assertions, and the City conceded that it could not challenge the constitutionality of the statues allowing for acquisition of the property. *Id.* at 33. The court, therefore, dismissed the claim that Fish & Wildlife violated the City's municipal "right" to secure water for future residents as spurious and without legal merit. *Id.* at 31. Because the case came before the court on a motion to dismiss for failure to state a claim, the court could not consider the factual allegation of Fish & Wildlife' intent. *Id.* at 32-33.

Moreover, the plaintiffs asserted that by establishing the Refuge, Fish & Wildlife violated Executive Orders 13,132 and 13,352. *Id.* at 15. These two executive orders addressed, respectively, how federal agencies should maintain the principles of federalism in implementing policy and the promotion of cooperation among federal, state, and local officials with respect to the use and protection of natural resources. *Id.* at 9-10. The City alleged that by deciding to approve the Refuge without proper deference to the City's policy-making discretion and by failing to adequately consider the water supply needs of the City, Fish & Wildlife harmed the City in violation of these orders. *Id.* at 15. The court dismissed this claim on the grounds that both Executive Orders expressly disclaimed the creation of private causes of action. *Id.* at 16.

The fight is not over, however. The claims for which defendants did not file a motion to dismiss are currently being heard in federal district court. Associated Press, *Dallas Suggests Other Sites for Neches River Wildlife Refuge*, Austin American-Statesmen, Dec. 22, 2007, at B2. In December of 2007, the City of Dallas proposed two alternative sites for the Refuge. *Id.* Fish & Wildlife agreed to delay acquiring more land for the refuge until the end of April as the lawsuit progresses. *Id.* 

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#### FEDERAL CASENOTES

#### FIFTH CIRCUIT HOLDS ADJACENT PROPERTY OWNER HAS STANDING AND SEPARATE TRACTS OF FORMER RAILROAD SITE CONSTITUTE A SINGLE FACILITY UNDER RCRA AND LEQA.

The Fifth Circuit Court of Appeals recently examined whether an entire former railroad site can be considered a single facility under the Resource Conservation Recovery Act (RCRA), 42 U.S.C. § 6901 (2007), and the Louisiana Environmental Quality Act (LEQA), La. Rev. Stat Ann. § 30:2001 (2007). Consol. Cos. v. Union Pac. R.R. Co., 499 F.3d. 382 (5th Cir. 2007). The court also addressed whether an owner of one tract of a former railroad site has standing to bring claims under RCRA and LEQA regarding the entire site. *Id.* at 385.

#### SUMMARY OF FACTS

Consolidated Companies, Inc. (Conco) owned a parcel of land (Conco tract) purchased in 1964 from the predecessor in interest of Union Pacific, the Southern Pacific Company (Southern Pacific). *Id.* at 384. Prior to 1964, the Conco tract, along with several other contiguous parcels of property, comprised Southern Pacific's railroad yard ("former railroad site"). *Id.* 

In 1996, Conco discovered contamination on the Conco tract, which it alleges is the result of prior railroad yard operations. *Id.* Conco brought suit against Union Pacific, pleading causes of action under RCRA and the LEQA seeking "monetary damages and injunctive relief directing Union Pacific to clean up contamination on the entire former railroad site." *Id.* 

The district court held a bench trial on the issue of whether the contiguous parcels of property that make up the former railroad site can constitute a single "facility" for the Conco RCRA and LEQA claims. *Id.* Union Pacific argued that (1) Conco did not have standing to include the contiguous tracts that compose the former railroad site and are not owned by Conco in its suit; and (2) under RCRA and the LEQA, the entire former railroad site cannot be a "facility" but must be limited to the Conco tract. *Id.* 

The district court held that (1) Conco had constitutional standing to bring its claims under RCRA and the LEQA; and (2) the entire former railroad site could constitute a single "facility" for the purposes of Conco's RCRA and LEQA claims. *Id.* at 385. Union Pacific renewed its same arguments on appeal. *Id.* 

#### STANDING ANALYSIS

Union Pacific argued that Conco does not have standing to bring its claims under RCRA and the LEQA "because [Conco] ha[d] not demonstrated an 'injury in fact' sufficient to meet the requirements of Article III, § 2 of the United States Constitution." *Id.* at 385. The court noted RCRA and the LEQA citizen suit provisions "do not, in and of themselves, satisfy the case-in-controversy requirement of Article III, § 2. *Id.* (citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 571-72 (1992)).

The court outlined the necessary elements of standing, saying "In order to demonstrate standing, a plaintiff must show: (1) that it has suffered an 'injury in fact' that is (2) fairly traceable to the challenged action of the defendant and (3) the likelihood that the injury can be redressed by a favorable decision." *Id.* (citing *Friends of the Earth, Inc. v. Laidlaw Environmental Services* (TOC), *Inc.*, 528 U.S. 167, 180-81 (2000)). The "injury in fact" must also be "both concrete and particularized and must be either actual or imminent." *Id.* 

The court held Conco demonstrated an "injury in fact" sufficient for constitutional standing purposes. *Id.* Conco produced evidence that contaminants were present in the soil throughout the former railroad site and Union Pacific conceded the contaminants were present due to former railroad activities. *Id.* Furthermore, Conco incurred costs while monitoring these contaminants under the LEQA orders. *Id.* The court found these injuries to be "clearly actual, concrete, and particularized." *Id.* at 386.

Union Pacific also argued Conco's injuries gave it standing to bring suit only as to the parcel of the former railroad site that Conco owned. *Id.* The court was unpersuaded by this argument and held "Conco's injuries, both actual and threatened, are sufficiently related to the former railroad site so as to give Conco standing to bring

claims implicating the site in its entirety." *Id.* The court relied on the nature of Conco's injuries that "arose out of the railroad activities conducted throughout the entire former railroad site." *Id.* Furthermore, Conco introduced evidence that demonstrated contaminants on the other tracts posed future harm to Conco. *Id.* Finally, the court relied on evidence showing possible pollution to the local aquifer, extending beneath the former railroad site, could harm Conco employees. *Id.* 

The appellate court upheld the district court's determination that Conco had standing to bring its claims under RCRA and the LEQA. *Id.* at 386.

#### "FACILITY" UNDER RCRA ANALYSIS

The Fifth Circuit also upheld the district court's determination that under § 6972(a)(1)(B) of RCRA, the term "facility" can encompass the entire former railroad site.

Union Pacific argued that "the district court erred in holding that the entire former railroad site can comprise a single 'facility' for purposes of Conco's claims under the RCRA" *Id.* Union Pacific argued that "only the Conco tract can legally be considered a 'facility' under the RCRA." *Id.* 

Conco brought suit under the citizen suit provision of RCRA, 42 U.S.C.S. § 6972(a)(1)(B), which empowers "a plaintiff to act, in effect, as a private attorney general on behalf of citizens." *Id.* To prevail under this section, a plaintiff must establish that "[t]he defendant is a person, including...one who was or is an owner or operator of a solid or hazardous waste treatment, storage, or disposal *facility*." 42 U.S.C. § 6972(a)(1)(B) (emphasis added).

The term "facility," although used throughout RCRA, is not defined in the Act's definition section. 42 U.S.C. 6909 (2007). Thus, the court turned to the definition of "facility" in § 6991b(h)(6)(D), a section of RCRA that addresses underground storage tank claims, which include "any contiguous or adjacent property." *Id.* (citing 42 U.S.C. § 6991b(h)(6)(D) (2007)). From this definition the court reasoned, "'Facility,' then, is defined in the RCRA in a manner that is inclusive of contiguous or adjacent tracts of property." *Id.* at 387.

Supporting the use of this definition, the court noted "it is a well accepted rule of statutory construction that 'identical words used in different parts of the same act are intended to have the same meaning." *Id.* (citing *Commissioner v. Lundy*, 516 U.S. 235, 250 (1996)). The court also used the definition of "facility" found in the Comprehensive Environmental Response, Compensation, and Liability Act to inform its own inclusive definition of "facility" for RCRA purposes. *Id.* Finally, the court looked to the legislative purpose behind RCRA and found, "when read in light of its legislative intent, it is clear that the correct interpretation of the term 'facility' in § 6972(a)(1)(B) is one that encompasses the entire former Southern Pacific railroad site." *Id.* at 388.

Union Pacific also argued that "facility" should be limited to the Conco tract because Conco did not have any ownership interest in any of the other tracts that make up the former railroad site. *Id.* The court found this argument unpersuasive and noted, "nothing in the RCRA prevents a plaintiff from bringing a suit implicating a facility in which he lacks a complete or even partial ownership interest." *Id.* Furthermore, the court had previously allowed such suits under RCRA. *Id.* (citing Cox v. City of Dallas, 256 F.3d 281, 293 (5th Cir. 2001)).

The court also upheld the district court's determination that the entire former railroad site can constitute a "facility" for purposes of Conco's LEQA claims.

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#### STATE CASENOTES

## MAGUIRE OIL CO. V. CITY OF HOUSTON, 243 S.W.3D 714 (TEX. APP—HOUSTON [14TH DIST.] 2007, REH'G DENIED)

#### SUMMARY OF FACTS

This inverse condemnation dispute reached the court of appeals after a fourteen-year voyage through various federal and state courts. Maguire Oil Co. v. City of Houston, 243 S.W.3d 714, 717 (Tex. App.—Houston [14th Dist.] 2007, reh'g denied). The trial court dismissed Maguire's case when it granted the City's plea to jurisdiction and ruled that Maguire's claim for inverse condemnation was not ripe for adjudication. Id. at 716. Maguire brought this appeal challenging that jurisdictional determination. Id.

Maguire held substantial mineral rights "around and underneath Lake Houston." *Id.* at 716-17. In the late 1980s, Maguire determined, after failed drilling attempts from outside the city limits and expenses incurred in excess of three million dollars, the only feasible location to drill "would be within 1000 feet from Lake Houston." *Id.* On May 7, 1991, the City granted Maguire's permit to drill inside the city limits about 300 feet from Lake Houston. *Id.* Subsequently, "Maguire spent approximately \$200,000 building roads, clearing the location, and moving in the rig and equipment." *Id.* Six months later, the City issued a stop work order, and revoked Maguire's drilling permit pursuant to the Houston Code of Ordinances which states, "No well shall be drilled within the control area of Lake Houston which is nearer than 1,000 feet from the normal water's edge." *Id.* (citing Houston, Tex. Code of Ordinances Ch. 23, ART. IV, §§ 23-102 (1991).

Maguire responded with multiple, unsuccessful attempts to persuade the City to reconsider the revocation. *Maguire*, 243 S.W.3d at 717. The City's representatives "maintained that the ordinance blanketly prohibited drilling." *Id*. On these facts, the court of appeals considered the ripeness of Maguire's inverse condemnation claim.

#### RIPENESS

The court of appeals' analysis began with the principle that, "a dispute must be ripe for adjudication before a court may exercise subject matter jurisdiction." *Maguire*, 243 S.W.3d at 718 (citing *Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922, 928 (Tex. 1998)). The court of appeals noted that this principle requires a "final decision" to exist in order to for an inverse condemnation claim to be ripe and "[i]n the context of an inverse condemnation case, the matter is not ripe unless the governmental entity ...

reached a final decision." Id. (citing Williamson County Reg'l Planning Comm'n v. Hamilton Bank of Johnson City, 473 U.S. 172, 186 (1985); Mayhew, 954 S.W. 2d at 928-29).

The court of appeals also differentiated the "final decision" requirement from the doctrine of exhaustion of administrative remedies. *Maguire*, 243 S.W.3d at 718. It stated that "[t]he finality requirement concerns whether the initial decision maker has arrived at a definitive position on the issue that inflicts an actual, concrete injury whereas the exhaustion requirement generally refers to administrative procedures available for review of an adverse decision." *Id.* at 718-19 (citing *Hamilton Bank*, 473 U.S. at 193).

#### RESULT

The court of appeals looked at the city ordinance and found that, the City's director of public works "is the only person with authority to grant a drilling permit;" therefore, "the director is the relevant decision maker." *Maguire*, 243 S.W.3d at 719. The court stated that the record reflected that "the director rendered a final decision;" that the City revoked Maguire's permit and issued a stop work order; and "that the director was adamantly opposed to issuing any variance or concession that would permit drilling." *Id*.

The court also rejected the City's argument that Maguire should have appealed the revocation to the City Council, noting the record reflected that the City Code precluded the authority of the City Council to exercise discretion. *Id.* at 720 (citing *Palazzolo v. Rhode Island*, 533 U.S. 606, 620 (2001), stating that "once it is clear the relevant authority lacks discretion to permit any development, a takings claim is likely to have ripened"). The court rejected the City's claim that "before a court may determine whether further action is futile, the party seeking a permit must seek variances, submit multiple applications, and pursue numerous attempts to receive a permit." *Maguire*, 243 S.W.3d at721. The court observed that "issuance of a permit is proscribed by the City; therefore, seeking a variance would be superfluous." *Id.* (referencing *Palazzola*, 533 U.S. at 621). It also noted that "the law does not require citizens to continuously pursue a permit simply for the exercise." 243 S.W.3d at 721 (referencing *Palazzola*, 533 U.S. at 622).

The court of appeals held Maguire's inverse condemnation claim was ripe for adjudication, because Maguire received a final decision from the City and any additional action by Maguire would have been futile. *Maguire*, 243 S.W.3d at 722.

Jeffrey J. Russell was a third-year student at The University of Texas School of Law and a staff member of the Texas Environmental Law Journal during this issue.

Howard Slobodin received his B.A. from the University of Oregon in 1998 (cum laude) and his J.D. from the University of Texas School of Law in 2001 (with honors). A native of Portland, Oregon, and former Honors Assistant Attorney General with the Natural Resources Division of the Office of the Attorney General, Mr. Slobodin is a Staff Attorney at the Trinity River Authority.

#### PUBLICATIONS

## PUBLICATIONS: "GASPING FOR BREATH: THE ADMINISTRATIVE FLAWS OF FEDERAL HAZARDOUS AIR POLLUTION REGULATION AND WHAT WE CAN LEARN FROM THE STATES"

In his recent article, "Gasping for Breath: The Administrative Flaws of Federal Hazardous Air Pollution Regulation and What We Can Learn from the States," Professor Victor Flatt argues that the current federal regulatory scheme fails to adequately minimize harmful effects of air toxics. Victor B. Flatt, Gasping for Breath: The Administrative Flaws of Federal Hazardous Air Pollution Regulation and What We Can Learn from the States, 34 Ecology L. Q. 107 (2007). Flatt primarily examines the failure of the Clean Air Act to regulate residual risks of hazardous air pollutants (HAPs) to human health. Id. at 111. He attributes the Act's shortcomings to deficient enforcement and administration of the Act's HAP provisions. Id. Specifically, Flatt identifies as the provisions' weaknesses: 1) the absence of a mechanism to ensure protection and implementation of the Act; and 2) flaws within the Act itself. Id. Flatt then examines various state programs and identifies ways, if any, in which the federal approach might be reformed to regulate residuals risk of HAP emissions more effectively. Id.

#### I. FEDERAL REGULATORY SHORTCOMINGS

In Part I of his article, Flatt reviews the past and present legal framework for addressing health risks posed by HAPs and flaws both with and within that framework. *Id.* at 112.

#### A. HAP PROVISIONS OF THE CLEAN AIR ACT

The first HAP provision was promulgated in a 1970 amendment to the Act, which required the EPA to list as an HAP any air pollutant that "'may cause, or contribute to, an increase in mortality, or an increase in serious, irreversible, or incapacitating reversible illness." *Id.* at 112. Once a pollutant was listed as an HAP, the EPA was "then required to establish health-based emission standards that provided an ample margin of safety to protect the public health." *Id.* 

Flatt criticizes ambiguity in the provision that charges the EPA with the duty of determining what constitutes "protecting the public health," particularly following judicial preclusion of a "risk-free" definition. *Id.* at 113. He further criticizes the Agency's deliberate identification of HAPs and development of an HAP list, which often only developed in response to litigation and Congressional pressure. *Id.* at 113-14. In 1990, Congress limited the EPA's discretion and imposed its own technology-based regime, which is the regime still in place today. *Id.* at 114. It calls for a two-phase strategy: phase I requires the EPA to establish Maximum Achievable Control Technology (MACT), which is the technology that provides maximum reduction in emission of HAPs. *Id.* at 115. In making this determination, the EPA is bound to a range of considerations, including the cost of technology, non-air quality health, and environmental or energy impacts or requirements. *Id.* at 115-16. In phase II, the EPA must

determine the effectiveness of its proposed standards and assess the need for revision. *Id.* at 117-18.

Flatt argues that Congress and the EPA have failed at both phases, citing both deficient administrative and enforcement provisions. With respect to the former, Flatt discusses the EPA's slow promulgation of MACT standards and inadequacy of technology controls to eliminate risk in certain contexts. *Id.* 

#### B. PROBLEMS WITH ENFORCEMENT STRATEGIES

Flatt posits that the EPA has failed to enact sufficiently protective standards due to the "uncertainty of administration and of administrative follow-ups that are built into the statutory scheme for residual risk," including "uncertain standards, deadlines, and penalties for failure to act." *Id.* at 119. He criticizes problems of delay in both enactment and reevaluation of MACT standards, namely that the EPA is not required to conduct risk analysis until eight years after establishing standards for major sources. *Id.* at 118. Additionally, Flatt views the general judicial deference to the Agency's administrative practices (*e.g.*, standard establishment and timetables) as rendering litigation necessary to ensure enforcement. *Id.* at 119. He further identifies as problematic the inherent uncertainty of assessment and measurement of residual risk and the Act's failure to define acceptable levels of risk. *Id.* at 120.

Flatt then argues that these statutory problems undercut health protection under the Act, citing the failure to implement residual risk standards for refineries in the Houston area. *Id.* He explains that uncertainty in risk analysis combined with tension between industry interests and the EPA in defining risk have delayed development of measures to minimize or, when possible, eliminate residual risk. *Id.* at 121. Moreover, even if standards are eventually set, Flatt notes that it is impossible to ensure that the standards sufficiently controlled the actual level of risk given the uncertainty of measurement and monitoring. *Id.* He concludes that although reduction of air toxics through technology controls is possible, residual risks will remain. *Id.* at 122.

#### II. REVIEW OF SELECTED STATE REGULATORY SCHEMES

Professor Flatt concludes in Part I that the current federal legal framework fails to regulate health risks posed by HAPs and calls for consideration of alternative regulatory theories. *Id.* at 122. He specifically cites the need to account for uncertainty in risk measurement and to implement enforceable triggers. *Id.* Thus, in Part II, Flatt evaluates the regulatory schemes of twelve states across the country that he believes may more effectively control residual risk of certain common HAPs. *Id.* at 123. For each state, he provides an overview of the regulatory program; identifies the pollutants and their sources; considers the state's settings of standards and emissions levels; describes the program's method of monitoring, compliance, and enforcement; and draws conclusions as to the effectiveness of the scheme. *Id.* at 123-61.

Although Flatt praises aspects of a variety of states' programs, he gives the most laudable treatment to California. He reports that California has one of the most rigorous regulatory approaches that utilizes both independent state research as well as the findings of others. *Id.* at 127. Its enforcement scheme relies on self-monitoring and self-reporting and involvement of local authority to regulate emissions rather than exclusive reliance on agency oversight. *Id.* California also delegates to industry sources

themselves the responsibility of ensuring compliance through various monitoring programs. *Id.* Flatt similarly praises Connecticut's program as "definitive and rigorously enforced," criteria he views as necessary to an effective regulatory scheme. *Id.* at 130.

#### III. Analysis and Implications for Changing HAP Regulation

In Part III, Flatt makes several recommendations for improving the current federal legal framework of regulating HAPs based on his review of state-run programs. He explains that although these states' standards and requirements appear to more effectively regulate residual risk than the federal program, it is unclear if any actually do. *Id.* at 161-62. The reason for the seemingly disparate results in the states' data lies in the remarkable variation of health standards in state regulations, rendering accurate evaluation and comparison of the schemes a speculative effort. *Id.* at 162. Different methods of measurement and sets of assumptions create "uncertainty as to whether the narrative goal of protecting human health is being accomplished at all, or whether it may be accomplished at too high a cost." *Id.* at 164. Flatt proposes that, despite the complexity of settling upon a value for all risk standards, particularly given the tremendous disparity among state standards, uniform standards could be established through open democratic discussion. *Id.* at 164-65.

The states also vary in their enforcement and monitoring of standards. *Id.* at 165. Flatt praises California's enforcement scheme as administratively flexible and effective in both assessment and reduction of risk. *Id.* at 167. He attributes this to imposition of high penalties for noncompliance and a relatively active state agency. *Id.* He concedes, however, that it is uncertain if this scheme would be effective if implemented at the federal level or if its effectiveness is dependent upon factors unique to California. *Id.* 

Despite the many differences among various state schemes, studies have shown that nearly all states with state-run programs (including Texas, the biggest producer of HAPs) have seen reductions of HAPs. *Id.* He specifically notes a correlation between states with definitive standards (clear regulatory requirements) and independent enforcement provisions and greatest percentage reductions of air toxics. *Id.* at 169-170. Flatt concludes that the ingredients to effective regulation include implementation of specific standards and testing methods, requiring self-reporting of noncompliance, and putting into place follow-up procedures to test compliance. *Id.* at 171.

### IV. CONCLUSION: PROTECTING THE PUBLIC FROM AIR TOXICS AT THE FEDERAL LEVEL

In conclusion, Professor Flatt restates his thesis that the federal regulatory program has failed to control the risks of HAPs to human health despite efforts to statutorily target residual risk. *Id.* at 171. He suggests that an effective response will require, inter alia, implementation of clear standards and enforcement methods, self-reporting of risk analysis, and corrections upon noncompliance. *Id.* at 172. He calls for drastic reduction of residual risk and open public debate of appropriate risk levels toward that end. *Id.* Flatt also recommends enacting means for detecting noncompliance and triggers for enforcement of standards through self-monitoring and reporting. *Id.* He posits that if the federal program were reformed to resemble that of California or

Connecticut, air toxics could be reduced to safe levels, the goal of the Clear Air Act's HAP provisions. *Id.* at 173.

Julie Urice, was a second-year law student at the University of Texas School of Law during this issue, and is a staff member of the Texas Environmental Law Journal..

Timothy Wilkins is a partner practicing environmental law at Bracewell & Giuliani L.L.P. in Austin and Houston. Mr. Wilkins is a graduate of Harvard Law School where he served as Editor-in-Chief of the Harvard Environmental Law Review and as research assistant to Professor Laurence Tribe.

#### CHANGES IN THE ENVIRONMENT

ENRLS Law School Committee Chair **Nathan Block** has joined BP in its Legal Department in Houston. He was formerly an Associate with Winstead, PC in Houston.

**Stephen P. Chung** has joined TransCanada USA Services in Houston. He was formerly with ConocoPhillips.

**John L. Howard, Jr.** opened his own firm, Clarendon Strategies, where he continues to assist clients in developing and implementing Texas and federal environmental policy. He was formerly with Vinson & Elkins, L.L.P. in Austin.

**Eileen McPhee** has become an Associate with Carls, McDonald & Dalrymple, LLP in Austin. Ms. McPhee practices in the areas of water, municipal, and administrative law. Her practice includes the representation of municipalities and groundwater conservation districts.

Suzanne B. Murray became Regional Counsel for Region 6 of the United State Environmental Protection Agency, effective October 26, 2008. She was serving as the Acting Regional Counsel and had been the Deputy Regional Counsel for Enforcement in Region 6 since January 2004.

**Craig Pitzlaff** has joined Holly Corporation. He was formerly an Associate with Andrews Kurth LLP in Dallas.

Mary Sahs has become Of Counsel to the firm of Carls, McDonald & Dalrymple, LLP in Austin. Ms. Sahs continues to practice in the areas of environmental, administrative, and water law. Her practice includes the representation of many groundwater conservation districts. She is the editor of "Texas Law of Water Resources," a StateBar-Books publication expected to be published in 2009.

Ryan J. Sullivan joined Booth, Ahrens & Werkenthin, P.C. in Austin in November after working with Senator Uresti for four years in both the House and Senate

Carrick Brooke-Davidson and Paul Seals have become shareholders in the firm of Guida, Slavich & Flores, P.C., in the firm's Austin office. Mr. Brooke-Davidson was formerly with Andrews Kurth LLP in Austin. Mr. Seals was formerly with Akin Gump Strauss Hauer & Feld, LLP in Austin. Guida, Slavich & Flores, P.C. was established in 1991. This new office in Austin is its first branch office.

Lloyd Gosselink Rochelle & Townsend, P.C. announced that **Kristen S. Olson** and **Sara R. Thornton** have joined the firm's Water Practice Group, **Stefanie P. Albright** has joined the firm's Districts and Water Practice Groups, **Patrick N. Jackson** has joined the firm's Utility Practice Group, and **Cathleen C. Slack** has joined the firm's Transactions Practice Group.

# ANNUAL TEXAS ENVIRONMENTAL SUPERCONFERENCE AND OTHER CONTINUING LEGAL EDUCATION

The Environmental and Natural Resources Law Section holds its annual Texas Environmental Superconference on or about the first weekend in August of each year. In August of 2009, the Section will hold the twenty-first version of the educational, entertaining, and fun event. The conference has been at the Four Seasons Hotel in Austin, Texas and will be again next summer.

For details about this great event and other CLE opportunities in the environmental and natural resources area, please see the Section's website at www.texenrls.org.

#### SPECIAL ANNOUNCEMENTS

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