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A Critical Analysis of Allowance Allocation in Cap-and-Trade and its Effect on Linked Carbon Markets

By Andrew J. O'Connell

I. Introduction

Earth is getting hotter.[1] The surface temperatures rise as greenhouse gases increase in the atmosphere because these gases trap heat and do not let it escape. Since the beginning of the industrial revolution, humankind has released an increasing amount of these

1 *See* Intergovernmental Panel on Climate Change [IPCC], *Climate Change 2007: Synthesis Report*, 2 (2007), *available at* http://www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html.

gases into the atmosphere.[2] In the early 1990s, world leaders collectively agreed that countries should take action to cooperate and work toward preventing "dangerous anthropogenic interference with the climate system" caused by greenhouse gas emissions.[3]

This is not as simple as turning off a faucet. Humankind, in its evolutionary and technical development, has come to rely upon those things that emit greenhouse gases: fire, oil, electricity, modern agriculture. Measures to stabilize Earth's climate do not yet require devolution from modern civilization. It requires, instead, a revolution of thought, technology, and economy that will preserve the future of civilization and protect future generations of humankind.

Policy and economic innovations that will help save modern civilization from its greenhouse gas gluttony do not advocate a starvation diet. They require a curbing of the appetite. There is a finite amount of emissions that can be put into the atmosphere, and it must be shared.

This article presents and critically analyzes the primary methods for allocation in cap-and-trade schemes: Auctioning and Free Allocation, which includes a number of variations, presented under the overarching categories of Grandfathering and Benchmarking. The article critiques these allocation methods, pinpoints their flaws and their positive attributes, then presents how these methods can be combined to form a hybrid system that preserves the benefits and tempers the inadequacies of each method. The development and implementation of carbon markets, including the more recently prominent cap-and-trade schemes as explained in Section II, present economic models for reducing the amount of greenhouse gas emissions. These models commercialize emissions, empowering policymakers and businesses to affix value upon the right to emit greenhouse gases. This permission to emit certain amounts of emissions is valuable, and can be bought, sold, and traded. These permissions are called allowances, credits, or permits.

This paper endeavors to critically analyze how allowances are distributed to those businesses covered by a cap-and-trade scheme. This is an important question because the characteristics of auctioning, grandfathering, and benchmarking allowances impact the entire scheme and can have far-reaching impacts upon society through, among other things, prices of electricity and other modern-day needs. This is further analyzed in Section III.

Of course, the most effective system would regulate the total amount of greenhouse gas emissions for the entire world, but such an international agreement does not exist. Instead, nations have taken individual actions by establishing domestic and regional cap-and-trade schemes. Section IV analyzes and compares current emissions trading systems throughout the world, including the European Union Emissions Trading System, the Regional Greenhouse Gas Initiative in the Northeastern United States, the systems in California and Québec, and the New Zealand Emissions Trading System.

The prospect remains, however, for an international system to develop that links these domestic systems. Several questions must be answered before domestic systems can be linked, and an important one regards the effect domestic allowance distribution methods would have on linked systems. Section V evaluates the possibility for linking

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2 *Id.* at 5.

3 United Nations Framework Convention on Climate Change, Oct. 15, 1992, 1771 U.N.T.S. 107, 31 I.L.M. 849.

domestic carbon markets. Problems with such connections arise, however, when systems attempt linking because the differing design choices, in particular the method of allocation, affect the competitiveness of one system's participants vis-à-vis those in other systems. This article analyzes problems that may arise, and suggests methods of mitigation.

In sum, this article aims to educate and advise system designers and policymakers on the intricacies involved when choosing a particular allocation method and other issues that can be presented by future links with other systems.

II. Cap & Trade

Among the various design options for a regulated system to curb emissions, market-based instruments – like carbon taxes, subsidies, and, in particular, cap-and-trade schemes – are emerging as the choice of national and regional policymakers. The most important element for the advocacy of these schemes is economic efficiency (and subsequent low cost to society), which is achieved through incentivizing reductions from those emitters who are most economically able to reduce emissions.[4] Cap-and-trade schemes depart from command-and-control techniques; instead, they rely on the free market to trade emission allowances to ultimately reduce emissions.[5]

Emission allowances are quantity-based mechanisms, which limit the amount of emissions at a predetermined level.[6] This predetermined level is the "cap" in cap-and-trade. To keep emission levels at or below this cap, a government-authorized regulator distributes allowances amongst emitters in a regulated industry.[7] In their aggregate, allowances authorize emissions equal to the cap level and individually permit a holder of the allowance to emit the amount assigned to a single allowance (the total emissions cap divided by the number of allowances in the scheme's circulation).[8] At the end of a compliance period, each holder is required to surrender enough allowances to cover its

4 Robert N. Stavins, *Implications of the U.S. Experience with Market-Based Environment Strategies for Future Climate Policy*, *in* Emissions Trading for Climate Policy: US and European Perspectives 63-64 (Bernd Hansjurgens ed., 2005).

5 *Acid Rain Program: Basic Information*, U.S. Envtl. Prot. Agency (July 25, 2012), http://www.epa.gov/airmarkt/progsregs/arp/basic.html. Admittedly, aspects of a cap-and-trade system will have "command" elements due to a government's imposition of the system and the design choices therein required, such as the method of allocation.

6 *See* Cameron Hepburn, *Carbon Taxes, Emissions Trading, and Hybrid Schemes*, *in* The Economics and Politics of Climate Change 368-69 (Dieter Helm & Cameron Hepburn eds., 2009).

7 *See id.* at 369; Liz Bossley & Andy Kerr, Consilience Energy Advisory Group Limited, Climate Change and Emissions Trading: What Every Business Needs to Know xvii (2d ed., 2007).

8 Typically, schemes have provided that each allowance permits the holder to emit one tonne of carbon dioxide equivalent. *See* Bossley & Kerr, *supra* note 7, at xviii. Although, the amount of emissions assigned to each allowance is arbitrary and therefore could reasonably be varied by policymakers according to the needs and desires of each scheme and its creators.

emissions.[9] Over time, the cap is reduced, as is the number of allowances, resulting in lowered emissions throughout the regulated industry.

For example, if a government wished to use a cap-and-trade system to keep emissions at 1,000,000 tonnes[10] of carbon dioxide equivalent ("CO_2e") per year, it would choose to distribute (through various methods) 1,000,000 one-tonne allowances amongst emitters. To reduce such emissions through a cap-and-trade system, the government could distribute fewer allowances to emitters than is needed to cover all emissions in the regulated industry: if the desired emission level were 80% of the aforementioned level, the government could distribute 800,000 one-tonne allowances and ultimately leave the decision of how to most efficiently reduce the 200,000 tonnes of CO_2e to industry participants. This process could, and would most likely, be undertaken in multiple steps over years to reach the desired emissions reductions instead of requiring stark reductions over a short amount of time.[11]

The "trade" in cap-and-trade relates to the industry participant's capability to sell and buy allowances to other emitters. An emitter may profit from selling its unneeded allowances to another industry participant that cannot adequately limit its emissions level to that covered by its own allowances and needs to purchase additional allowances.[12] A market for allowances is impliedly created, and the market determines the price of an allowance.[13] Trading emissions in this manner is intended to provide economic incentives for market participants to reduce their emissions.[14] A participant can purchase more allowances or reduce its emission levels (and the cost of purchasing allowances) by changing its production level, or become more efficient by implementing new techniques or technology that emit less at the same production level.[15] Ensuring compliance with the scheme and the scheme's effectiveness centers primarily on moni-

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9 A. Denny Ellerman, *US Experience with Emissions Trading: Lessons for CO2 Emissions Trading*, *in* EMISSIONS TRADING FOR CLIMATE POLICY: US AND EUROPEAN PERSPECTIVES 82 (Bernd Hansjurgens ed., 2005).

10 The term "tonne" refers to metric tons where used in this article.

11 *See* BOSSLEY & KERR, *supra* note 7 at xvii.

12 *See* Thomas H. Tietenberg, *Transferable Discharge Permits and the Control of Stationary Source Air Pollution: A Survey and Synthesis*, 56 LAND ECON. 391, 394 (1980).

13 *See id.* at 394, 398. There is an exception in which a regulator may implement a floor-price for allowances at which the regulator will purchase allowances to ensure that the market is not flooded with an excess of allowances beyond those needed for the emissions in the industry. *See* Dieter Helm, *EU Climate-Change Policy – A Critique*, *in* THE ECONOMICS AND POLITICS OF CLIMATE CHANGE 231 (Dieter Helm & Cameron Hepburn eds., 2009). Conversely, a regulator could also decide to place a ceiling on the price of allowances, at which point the regulator would sell or otherwise provide more allowances. *See id.*

14 Dominik Möst, Massimo Genoese, Anke Eßer-Frey & Otto Rentz, *Design of Emission Allocation Plans and Their Effects on Production and Investment Planning in the Electricity Sector*, *in* EMISSIONS TRADING: INSTITUTIONAL DESIGN, DECISION MAKING AND CORPORATE STRATEGIES 72 (Ralf Antes, Bernd Hansjürgens, & Peter Letmathe eds., 2008).

15 *See* RICHARD BARON & CÉDRIC PHILIBERT, INT'L ENERGY AGENCY, ACT LOCALLY, TRADE GLOBALLY: EMISSIONS TRADING FOR CLIMATE POLICY 26 (Sierra Peterson ed. 2005); BOSSLEY & KERR, *supra* note 7, at xvii.

toring and verifying emissions levels from industry participants and that each participant holds the appropriate number of allowances.[16]

For purposes of illustrating how this trading works in a cap-and-trade scheme, imagine a single city with only two emitters and a government that desires emissions reductions in the city from 1,000 to 800 tonnes of CO_2e. One emitter (A) is initially allocated 500 allowances while the other (B) is allocated the remaining 300 allowances.[17] A is an emissions-intensive producer and emits 650 tonnes of CO_2e, whereas B emits only 350 tonnes. A is less able to reduce its emissions or become more efficient due to its emissions-intensive activity and is only able to reduce its needs to 600 allowances. B can reduce its emissions more easily due to available, cheap technology in its industry and, therefore, reduces its needs to 200 allowances. Through trading, A can purchase B's 100 additional allowances. B profits from reducing its emissions and A attains sufficient allowances to cover its emissions needs and avoid any regulatory penalty.

III. Allowance Allocation Methods

This article focuses on the choice in design of a cap-and-trade scheme. Specifically, *how* do schemes distribute (or allocate) allowances to their participants, and what are the effects of this design choice? Broadly, there are two methods of distribution: free allocation and auctioning. There is much debate surrounding which of these methods, and the variations within each, are the best choice in any given system. As such, many politicians, economists, and academics have presented and supported many designs in the hope that they would be the inventor or advocate of the most successful system.[18] Regardless of which allocation method is chosen, the market for allowances distributes allowances efficiently to those participants who need them the most.[19] In the following sections, auctioning and free allocation methods are presented, analyzed, and critiqued.

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16 Bossley & Kerr, *supra* note 7, at xvii; *see also* Office of Air & Radiation, U.S. Envtl. Prot. Agency, EPA430-B-03-002, Tools of the Trade: A Guide to Designing and Operating a Cap and Trade Program for Pollution Control, 1-2 (June 2003), *available at* http://www.epa.gov/airmarkt/resource/docs/tools.pdf [hereinafter *Tools of the Trade*].

17 *See* Fanny Missfeldt & Jochen Hauff, *The Role of Economic Instruments*, *in* The Economics of Climate Change, 115-16 (Anthony D. Owen & Nick Hanley eds., 2004).

18 *See* Hepburn, *supra* note 6, at 381.

19 Tietenberg, *supra* note 12, at 399 (internal citations omitted); Frank Gagelmann, *The Influence of the Allocation Method on Market Liquidity, Volatility and Firms' Investment Decisions*, *in* Emissions Trading: Institutional Design, Decision Making and Corporate Strategies 71 (Ralf Antes, Bernd Hansjürgens, & Peter Letmathe eds., 2008) (internal citations omitted); *see also* Baron & Philibert, *supra* note 15, at 26. However, the choice of allocation design vis-à-vis another design does have an effect upon the efficiency of the system. Gagelmann, *supra*, at 72.

A. AUCTIONING

A government or regulator can choose to implement allowance allocation through an auction. Such an auction would occur periodically, usually on a yearly schedule.[20] Under auctioning, allowances are sold to participating emitters at auction. Auctions can be designed to have a variety of different bidding procedures. Three common procedures are the use of sealed bids, ascending bids, or descending price auctions.[21] When sealed bids are used, each emitter submits a bid containing a price for a particular quantity of allowances.[22] The auctioneer ranks the bids by price and distributes allowances from highest to lowest bidder until all allowances for the compliance period have been allocated.[23]

In descending price auctions, the auction begins with a high allowance price and is decreased until a price is reached at which the entire amount of allowances is distributed.[24] If the auctioneer had 1,000 allowances to distribute, it would start with a "high" price for which only a few bids are made on allowances. The price of each allowance would then decrease incrementally until all 1,000 allowances, but no more, were bid for. This type of auction would reveal, firstly, those emitters who have higher costs associated with reducing emissions.[25] These emitters will pay a high price for allowances as long as it is still less than the cost of reducing emissions. This, in turn, reveals the industries that are most affected by a cap-and-trade scheme and least capable of reducing emissions.[26]

When ascending bids are used, the auctioneer places an initially low price for bids and then increases it until no more than the number of available allowances is bid for.[27] For example, if 1,000 allowances were available at auction, the auctioneer would assign an initially "low" price of $5/allowance, which would garner many bids from the participants. As the price is increased, similar information would be revealed as that in a descending price auction because a participant would react to the higher price depending upon its ability to abate its emissions at a lower cost than the allowances.[28] If it cost participant A $15/tonne CO_2e to reduce its emissions from 350 to 250 tonnes CO_2e, then an auction price above $15 would encourage participant A to abate its emissions and purchase only 250 allowances rather than pay the higher price for the extra allowances needed. This structure reveals the most information of the three alternatives here presented about emitters' costs and ability to reduce emissions.

Regardless of the design of the auction, the choice to use auctioning as the method of allowance allocation has a number of benefits. An auction gives each emitter the authority to determine its own allocation rather than leaving the control of distribution to outside decision makers.[29] An auction also reduces the control a single participant can

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20 *Tools of the Trade*, *supra* note 16, 3-17.
21 *Id.*
22 *Id.*
23 *Id.*
24 *Id.*
25 *See id.*
26 *See id.*
27 *See id.*
28 *See id.*
29 Gagelmann, *supra* note 19, at 71.

have on the availability of allowances because at auction, all allowances are available and all participants have equal access to bid for them, compared to a market in which availability is determined by participants' willingness to sell allowances.[30]

Auctioning, as the method of allocation, receives large amounts of both political support and opposition. First, auctioning is advantageous from the perspective of the governmental authority because it increases revenues for the government.[31] How these revenues are then used is critical in an analysis of auctioning. The revenues would, presumably, be used to compensate for the costs of organizing the auction and other costs associated with implementing the auction.[32] On the other hand, the remaining revenues, if pocketed by the government, arguably reduce auctioning to no more than a well-disguised tax because, like taxes, it imposes a mandatory, upfront cost.[33]

If the government uses these funds to reduce emissions in coordination with the cap-and-trade scheme, however, auctioning could support new technical innovations for further emissions efficiency, creating new markets supplemental and related to emissions reductions, as well as opportunities for economic growth.[34] Revenues could also be distributed as aid to households or other groups that are impacted by the inevitable increase in energy prices due to the introduction of allowances as a new cost to energy producers/generators/suppliers.[35] Studies have shown that, if distributed back to the population to reduce personal costs in a country like the United States, 40-50% of the social costs of operating a scheme could be offset.[36]

Second, due to an auction's cost-effectiveness – considering the amount of emissions reductions compared to the economic costs of an auctioning method – the economy and its continued growth may not be as stunted as it would under another method of alloca-

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30 *Id.* at 72; BARON & PHILIBERT, *supra* note 15, at 25.

31 *Tools of the Trade*, *supra* note 16, at 3-14; BARON & PHILIBERT, *supra* note 15, at 27; *see* Helm, *supra* note 13, at 230.

32 *See* BARON & PHILIBERT, *supra* note 15, at 25.

33 A carbon tax and a cap-and-trade scheme with allocation of allowances through auctioning are similar in the regard that, at least initially, the beneficiary of the revenues generated is the governmental authority; this is starkly different in practice because of the government's inherent uncertainty regarding the costs of the regulated industry causes miscalculation of the price per tonne emissions under a carbon tax whereas this uncertainty is irrelevant with a cap-and-trade scheme because the governmental authority does not set the price of allowances (instead, the bidders at auction or the market determine the price). *See* Dallas Burtraw, Karen Palmer, Ranjit Bharvirkar & Anthony Paul, *The Effect of Allowance Allocation on the Cost of Carbon Emission Trading: Discussion Paper 01–30*, RESOURCES FOR THE FUTURE, 5-6 (2001), *available at* http://www.rff.org/rff/Documents/RFF-DP-01-30.pdf; Helm, *supra* note 13, at 230.

34 *See Tools of the Trade*, *supra* note 16, at 3-14; *see* Helm, *supra* note 13, at 230.

35 *See* BARON & PHILIBERT, *supra* note 15, at 25; *Tools of the Trade*, *supra* note 16, at 3-16; Burtraw et al., *supra* note 33, at 15; Robert N. Stavins, *What Can We Learn from the Grand Policy Experiment? Lessons from SO_2 Allowance Trading*, 12 J. ECON. PERSPECTIVES 69, 84 (1998).

36 Robert N. Stavins, *Addressing Climate Change with a Comprehensive US Cap-and-Trade System*, *in* THE ECONOMICS AND POLITICS OF CLIMATE CHANGE 206 (Dieter Helm & Cameron Hepburn eds., 2009).

tion.[37] The cost to society under an auctioning system is roughly half as that under other methods of allocation.[38] A recent study found that, when the price of an allowance at auction was $25, the corresponding cost to society was only $26.50,[39] while under free allocation methods, the corresponding cost to society was over $75.[40] This strongly implies that auctioning is highly favorable over alternative allocation methods when considering a scheme's cost-effectiveness. Regardless of which method is chosen, the public – the consumers – will eventually foot the bill for increased prices when a cap-and-trade scheme is introduced.[41] The summation here is meant to show that there is a difference in the size of the bill that the public is asked to foot, depending upon whether auctioning is chosen as the allocation method.

Auctioning has been outcast, however, as a sole method of allocation because of strong eco-political considerations against it. First, there is the concern that any allocation that presents an upfront cost to participants would render some sectors more vulnerable to competition from competitors not included in scheme.[42] This would comparably lower costs for competitors, who are not mandated to pay for allowances at an auction, and could pass this cost-savings to consumers, making their products more attractive than those of a covered participant.[43] A related concern is emission leakage. Emission leakage results if an industry participant decides that the cost of remaining under the cap-and-trade scheme is too expensive and that moving operations to a location outside the scheme is appropriate.[44] This circumvents the purpose of implementing a cap-and-trade scheme because the emissions would simply move, or *leak*, elsewhere, with the moving participants continuing to contribute the same amount of, or more, emissions.[45] A robust industry could withstand these economic stresses, but the concern is endemic in any non-global scheme that does not include all emitters. The foregoing concerns are especially important when considering the potential problems of linked systems, and will be discussed further in Section V.

Second, industry greatly opposes auctioning, as evidenced by strenuous lobbying against auctioning.[46] This results from either the introduction of a new, fixed cost or the lure of a scheme that freely allocates allowances to the industry, awarding an asset (the

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37 *See* Burtraw et al., *supra* note 33, at 15-16, 30. Burtraw et al. formulated and conducted an efficiency comparison of cap-and-trade schemes with auctioning and with free allocation. The comparison conducted has the caveat that it was constrained to an examination only of the electricity sector. The authors explain, however, that the analysis is valid for all-encompassing cap-and-trade schemes because the majority of the burden to meet climate change commitments would fall upon the electricity sector and because the lessons and insights can be extrapolated for a larger scheme. *See id.* at 6-7.

38 Burtraw et al., *supra* note 33, at 15.

39 *Id.* at 23.

40 *See id.* (stating that the cost under auctioning is less than one-third the cost of free allocation).

41 *See* Stavins, *supra* note 36, at 207.

42 PETER NEWELL & MATTHEW PATERSON, CLIMATE CAPITALISM: GLOBAL WARMING AND THE TRANSFORMATION OF THE GLOBAL ECONOMY 101-02 (2010).

43 *See id.*

44 *See id.*

45 *Id.*

46 NEWELL & PATERSON, *supra* note 42, at 101-02.

allowance) that could garner value on a trading market. Compared with other sectors, carbon-intensive industries, e.g. coal mining and coal-fueled power plants, are impacted the most by auctioning because of the comparatively high number of allowances these industries would need to purchase at auction to cover their emissions.[47] It is exactly the opposite with free allocation: the carbon-intensive industries are those that benefit the most when allowances are grandfathered because their greater historical emissions will result in the allocation of more allowances than those industries that are not carbon-intensive.[48]

As a tool to help spur private investment in clean technology, a cap-and-trade scheme with auctioning would, at least initially, be less effective because it would place an upfront cost on participants, reducing the likelihood that participants will have funds to invest in clean technology that could be economically viable and profitable over the long term.[49] This ultimately comes full-circle to the characteristic of auctioning that makes it attractive to government authorities: the revenues produced from auctioning would accrue to the regulatory authority, and decisions about investment or distribution of these revenues would belong to the government instead of the industry participants.[50]

B. Free Allocation

Free allocation has been referred to, simply, as "grandfathering," but with the innovation of benchmarking as another method to allocate allowances without imposing an auctioning cost on participants, it is appropriate to discuss both of these methods under the mantle of "free allocation." In each case, industry participants have a "dynamic incentive to increase" levels of the criterion used to determine the free allocation (e.g. if the benchmark is based upon output levels, it is in a participant's best interest to ramp production to receive more allowances than it would otherwise, and if based upon historical emissions, a participant benefits from a greater measure of its emissions).[51] The following sections present and analyze each of these methods.

1. Grandfathering

Grandfathering is the distribution of allowances for free, based upon the historic emissions level of industry participants.[52] The time period for the determination of an industry participant's historical emissions level varies from a single year's emissions to emissions over a range of years. Each participant's emissions are pooled with the others',

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47 Lawrence H. Goulder, Marc A.C. Hafstead, & Michael Dworsky, *Impacts of Alternative Emissions Allowance Allocation Methods Under a Federal Cap-and-Trade Program*, 60 J. Envt'l. Econ. & Mgmt. 171 (2010), *available at* http://web.stanford.edu/~goulder/Papers/Published%20Papers/Impacts%20of%20Alternative%20Emissions%20Allowance%20Alloc%20Methods%20(Goulder-Hafstead-Dworsky,%20JEEM%202010).pdf.

48 *See id.*

49 Newell & Paterson, *supra* note 42, at 101-02.

50 *See* Baron & Philibert, *supra* note 15, at 27; *see also* Helm, *supra* note 13, at 230.

51 Baron & Philibert, *supra* note 15, at 25. "In contrast, this effect does not arise with taxes or auctioned allowances." *Id.*

52 Baron & Philibert, *supra* note 15, at 25; *see also* Möst et al., *supra* note 14, at 72-73.

creating an account of total emissions covered by the scheme at its outset. A participant is then allocated a share of the allowances equal to its share of total emissions.[53]

Imagine the scenario of a cap-and-trade scheme with an initial allocation based upon the historical emissions level over the previous five years for three participants, A, B, and C: A has average yearly emissions over the past five years of 700 tonnes of CO_2e, B has 440 tonnes, and C has 860 tonnes. If each allowance authorizes a participant to emit one tonne of CO_2e and the system implements a reduction of 5% in emissions, there would be a total of 1,900 allowances available for distribution.[54] The allocation begins first by calculating the participant's share of total emissions. Here, A's share of emissions is 35%, B's share is 22%, and C's share is 43%. The participants would receive the corresponding share of total allowances, resulting in 665 allowances distributed to A, 418 to B, and 817 to C.

A grandfathering method of allocation produces the most politically friendly transition into a cap-and trade scheme. It presents the smallest initial impact on consumers and businesses and is favored by participants in the industry over auctioning or carbon taxes.[55] When allowances are grandfathered to emitters, there are no upfront costs like those associated with an auction or a tax, and it awards emitters valuable assets, which can be sold on a market at no cost.[56] Policymakers can, therefore, build support within the community of emitters because it will not present an immediate increase in costs.[57]

While it is the most favored allocation method of emitters, the problems of grandfathering may swing the balance in favor of other methods. First, grandfathering and other types of free allocation are less encouraging of investment in emissions-reducing technology and more efficient processes than auctioning.[58] It forgives prior business decisions made by participants without regard for the amount of their emissions.[59] Worse yet, it not only fails to reward emitters who invested in emissions-reducing technology before the system was implemented, it punishes them.[60] Imagine that an emitter invested in expensive, emissions-efficient technology that reduced its emissions by 10% before the implementation of the cap-and-trade scheme. If the determining period for partici-

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53 Burtraw et al., *supra* note 33, at 11.

54 Keep in mind that the emissions reduction target need not be the same across all covered industries, but adjusted based upon the availability of emissions-reducing technology and more efficient processes – A could be given a target of 3% (reduction of 21 tonnes CO_2e); B a target of 15% (reduction of 66 tonnes); and C a target of ~1.5% (reduction of 13 tonnes), for a combined target of 5% (reduction of 100 tonnes) – but for purposes of illustration the same target for all covered industries is used.

55 *See* Hepburn, *supra* note 6, at 378; Tietenberg, *supra* note 12, at 400; Helm, *supra* note 13, at 230; *see also* Thomas Sterner & Henrik Hammar, *Designing Instruments for Climate Policy*, *in* EMISSIONS TRADING FOR CLIMATE POLICY: US AND EUROPEAN PERSPECTIVES 31 (Bernd Hansjurgens ed., 2005).

56 *Tools of the Trade*, *supra* note 16, at 3-14.

57 Stavins, *supra* note 35, at 75; BARON & PHILIBERT, *supra* note 15, at 25; Tietenberg, *supra* note 12, at 400; Sterner & Hammar, *supra* note 55, at 31.

58 Carolyn Fischer, *Technical Innovation and Design Choices for Emissions Trading and Other Climate Policies*, *in* EMISSIONS TRADING FOR CLIMATE POLICY: US AND EUROPEAN PERSPECTIVES 44 (Bernd Hansjurgens ed., 2005).

59 Burtraw et al., *supra* note 33, at 25; BARON & PHILIBERT, *supra* note 15, at 25.

60 Gagelmann, *supra* note 19, at 71.

pants' historical emissions includes time after these improvements, the early actor loses the value of its investment vis-à-vis its competitors. Its competitors that did not invest benefit from inaction: their historical emissions and allocation of emission allowances will be higher. Further, when a system places a reduction target of 10%, an early actor must make investments in addition to its early actions to meet this target, therefore making its aggregate investments (and the financial burden therewith associated) greater than its competitors, who need only invest to the extent necessary to achieve the 10% reduction.[61] This illustrates that emitters have no incentive to reduce their emissions when it is apparent allowances will be grandfathered.

Second, participants in the sector may be overcompensated when allowances are grandfathered through windfall profits and power as an incumbent. Because grandfathering awards a valuable asset to participants without cost,[62] consumers could be passed this benefit through lower prices,[63] but in practice participants include the cost of purchasing an allowance on the market in the price of their product, giving the participant both the revenue from consumers and the benefit of selling allowances on the market.[64] This leads to a large transfer of wealth to participants, where its shareholders benefit at the expense of society.[65] These "windfall profits" may be viewed as unfair, but they do bolster short-term industry support for a cap-and-trade scheme.

Additionally, incumbent participants receive an advantage because future entrants to the industry will have comparatively higher costs imposed from their lack of an historical emissions baseline upon which to be awarded allowances and the resulting burden of having to purchase allowances from incumbents.[66] This turns the allowances from mere assets to strategic assets.[67] As a strategic asset, incumbents have control over when and how many allowances to sell.[68] An incumbent can hold these individually or collusively hold them in conjunction other incumbents to prevent any potential competitors from entering the industry.[69] The industry suffers as a whole because growth is prevented, an oligopoly is created, and windfall profits are created for incumbents.[70] Yet the appeal of

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61 For illustration, if A invests $10 million to reduce emissions from 1,000 to 900 tonnes CO_2e/year and its three competitors continue at 1,000 prior to implementation of a cap-and-trade system with grandfathering and a reduction target of 10%, A will receive 810 allowances and its competitors will each receive 900. To meet the 10% reduction target, competitors need invest a comparable $10 million (or buy additional allowances) while also receiving the value of 90 more allowances than A. Whereas A will necessarily make investments additional to its original $10 million, while receiving 90 allowances less in the allocation.

62 *See* Burtraw et al., *supra* note 33, at 29; Stavins, *supra* note 35, at 75-76.

63 *See* Tietenberg, *supra* note 12, at 400.

64 Möst, et. al., *supra* note 14, at 73.

65 *See* Hepburn, *supra* note 6, at 379-80 (internal citations omitted).

66 Hepburn, *supra* note 66, at 378 (*citing* Dieter R. Helm, *Economic Instruments and Environmental Policy*, 36 Econ. Soc. Rev. 205-28 (2005)).

67 Dieter R. Helm, *Economic Instruments and Environmental Policy*, 36 Econ. Soc. Rev. 205, 221 (2005).

68 *Id.*

69 *Id.*; Tietenberg, *supra* note 12, at 401.

70 *See* Tietenberg, *supra* note 12, at 401.

large profits and incumbents' power are two reasons why participants prefer grandfathering and why it is, therefore, easier to gain political support.

Some, but not all, danger of windfall profits and incumbent collusion to prevent new entrants can be avoided by the creation of a "new entrants' reserve."[71] A scheme can be created where allowances are grandfathered to incumbents, but a chosen amount of allowances are withheld from allocation and reserved for free allocation to new industry entrants.[72] This strategy was implemented by the designers of the European Union Emissions Trading Scheme (EU ETS), which held 5% of allowances in reserve for new entrants from 2013-2020.[73]

Third, grandfathering encourages an emissions increase building up to the start of the program.[74] It can encourage firms to overestimate their emissions or purposely overemit to gain a greater proportional share of allowances than their true emission level would justify. The effect can be seen in the market failure of 2007 in the EU ETS, when the amount of allowances grandfathered and distributed according to the National Allocation Plans (NAPs) of the European Union (EU) members were drastically overestimated.[75] Allowances in the EU ETS are no longer allocated based upon NAPs.[76] When the price of allowances dips extremely low, as it does when the market is flooded with too many allowances, participants have no incentive to invest in emissions-reducing technologies (which would reduce a participant's need to purchase allowances in the future).[77] The government is left with the responsibility (and the cost that comes with it) to subsidize technological innovation, whereas a healthy market price of allowances would support it.[78]

Such volatility in the allowance market can be countered through the use of regulated price ceilings and floors, affecting the supply and the long-term cost of allowances.[79] A price ceiling places a cap on the price of allowances in the market, at which point the regulator would provide more allowances.[80] This ensures that the price of an allowance never becomes so costly that participants consider relocating to a region

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71 *See* Hepburn, *supra* note 6, at 378 (citing Dieter R. Helm, *Economic Instruments and Environmental Policy*, 36 ECON. SOC. REV. 205-28 (2005)); *Tools of the Trade*, *supra* note 16, at 3-14.

72 *See* Helm, *supra* note 66, at 221; *Tools of the Trade*, *supra* note 16, at 3-18.

73 Directive 2003/87/EC of the European Parliament and of the Council, *Consolidated Version* of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, 2003 O.J. (L 275) 32, *amended by* Directive 2004/101/EC, 2004 O.J. (L 338) 18 (Nov. 13, 2004); Directive 2008/101/EC, 208 O.J. (L 8) 3 (Jan. 13, 2009); Regulation (EC) No 219/2009, 2009 O.J. (L 87) 109 (Mar. 31, 2009); Directive 2009/29/EC, 2009 O.J. (L 140) 63 (Jun. 5, 2009), Art. 10a(7), *available at* http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:PDF [hereinafter *EU ETS Directive 2003, 2009 Consolidated Version*].

74 *See* Stavins, *supra* note 35, at 75-76.

75 *See infra* Section IV.A

76 *See infra* Section IV.A.

77 Helm, *supra* note 13, at 231-32.

78 *Id.*

79 *See id.*

80 *See id.*

or country outside the reaches of the scheme's regulation (carbon leakage).[81] A price floor establishes a minimum price at which the regulatory body would purchase allowances or otherwise remove them from the market.[82] A floor price would give predictability to participants wishing to plan long-term because it would provide a minimum cost for future allowances and provide increased certainty in business calculations regarding a participant's economic investment in emissions-reducing technology.[83]

Most of the implemented cap-and-trade schemes have chosen grandfathering as the method of allowance allocation.[84] For example, grandfathering was the method used in one of the most successful cap-and-trade schemes (considering its ability to achieve meaningful emissions reductions):[85] the Acid Rain Program, implemented under the United States' Clean Air Act to curb sulfur dioxide ("SO_2") and nitrogen oxide ("NO_x") build up.[86] While it remains the most politically popular method of allocation for participants, its shortcomings may outweigh the majority of this benefit. Its efficiency is lower than auctioning in achieving reduction goals and is only higher than benchmarking at higher market prices for allowances (which would encourage more investment in emissions-reducing technology and more efficiency processes rather than the purchase of allowances).[87]

Considering its aforementioned negative aspects – awarding a windfall of profits, failing to satisfactorily reward emitters who took early action to reduce emissions, presenting a barrier to entry into the industry, and creating a rather large and unnecessary transfer of wealth – grandfathering should be implemented only in conjunction with other methods of allocation as a temporally-limited political solution to introduce cap-and-trade to an industry that will transition to another form of allocation or as part of a hybrid scheme implementing multiple methods of allocation.

2. Benchmarking

A free allocation of allowances does not need to be based upon participants' historical emissions.[88] "Benchmarking" is another method of free allocation that distributes allowances to industry participants according to an industry baseline. This benchmark could be based upon the production output[89] or even the average heat output in the

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81 *Id.* at 231.

82 *See id.*

83 *Id.* at 231-32.

84 Stavins, *supra* note 4, at 67.

85 U.S. Envtl. Prot. Agency, *Air Markets Program Data, Query: Emissions – Unit Level Data, Report*, http://ampd.epa.gov/ampd/ (follow "Start" hyperlink; then select requirements for query, "Acid Rain Program," "Emissions," "Annual," select years desired, "Nitrogen Oxides," "Sulfur Dioxide," and "No Aggregation") (showing that SO2 emissions fell from over 17 million short tons in 1980 to 5.1 million by 2010).

86 Burtraw et al., *supra* note 33, at 4.

87 Burtraw et al., *supra* note 33, at 16. For more information regarding the difference in economic and emissions-reductions efficiency. *See generally* Burtraw et al., *supra* note 33 (regarding the difference in economic and emissions-reductions efficiency, including its tables and figures).

88 Baron & Philibert, *supra* note 15, at 25.

89 Gagelmann, *supra* note 19, at 71; *see, e.g.*, Burtraw et al., *supra* note 33, at 4-5, 11-12.

industry,[90] but is more commonly based upon a chosen or calculated emissions rate (emissions per unit produced).[91] A participant's allocation is determined according to its emissions rate, where it receives more allowances as it lowers its emissions rate vis-à-vis the industry standard (this form of benchmarking is sometimes referred to as rate-based allocation or a generation performance standard).

For illustration, consider a regulated industry of four electricity generators with a cap-and-trade scheme initially allocating allowances based upon benchmarking. Alpha (A) generates 1,400 Megawatt hours (MWh) of electricity and emits 1,400 tonnes CO_2e yearly; Beta (B) generates 800 MWh and emits 600 tonnes; Gamma (G) generates 1,000 MWh and emits 500 tonnes. For every 1 MWh of electricity emitted, A emits 1 tonne CO_2e, B emits ¾ tonne CO_2e, and G emits ½ tonne CO_2e.[92] Assuming the designers of this scheme issue one allowance for every permitted tonne CO_2e emissions and desire a 20% reduction in emissions, 2,000 allowances would be issued.

If a benchmarking allocation were based upon only the production of the participants,[93] the participants who produce more electricity would be awarded more allowances. A would be awarded the most allowances: it accounts for 44% of electricity production and so would be awarded its comparable share of available allowances (875 allowances). For the same reason, B would be awarded 25% (500 allowances), and G would be awarded 31% (625 allowances). This method of benchmarking removes the incentive to improve emissions efficiency, emissions reductions, and investments in emissions-reducing technologies and processes, and instead incentivizes the exponential growth of production and production investments, resulting in ever more emissions. It would encourage participants to produce more and more, regardless of total emissions: to gain more allowances in the future, a rational participant would attempt to increase its share of the industry's production.[94] Every participant would consider this economic incentive, and a production race would be created. Total emissions would likely increase, unfortunately, due to the industry's increased production. Benchmarking based solely on production, therefore, creates a production subsidy for those participants capable of greater production than their competitors.[95] This could have a positive economic impact

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90 Gagelmann, *supra* note 19, at 71.

91 PETER ERICKSON & MICHAEL LAZARUS, ET AL., WHITE PAPER: ISSUES AND OPTIONS FOR BENCHMARKING INDUSTRIAL GHG EMISSIONS, *submitted to* Wash. State Dep't of Ecology, STOCKHOLM ENVIRONMENT INSTITUTE 3 (2010) *available at* http://www.ecy.wa.gov/climatechange/docs/Benchmarking_White_Paper_Final.pdf; Möst, et. al., *supra* note 14, at 72-73; *Tools of the Trade*, *supra* note 16, at 2-9; Burtraw et al., *supra* note 33, at 4; *see also* Gagelmann, *supra* note 19, at 71.

92 The figures represented here regarding the emissions rate for generation are based on actual emissions rates provided by the United States Energy Information Administration for the year 2000, where the emissions rate for a coal-fired power plant was 2,249 lbs CO_2/MWh (1.020 metric tonnes CO_2/MWh), an oil power plant's was 1,672 lbs CO_2/MWh (0.7584 metric tonnes CO_2/MWh), a natural gas power plant's was 1,135 lbs CO_2/MWh (0.5148 metric tonnes CO_2/MWh). U.S. Envtl. Prot. Agency, *Clean Energy: How Does Electricity Affect the Environment*, http://www.epa.gov/cleanenergy/energy-and-you/affect/ (last visited Sept. 19, 2014).

93 *See generally* Burtraw et al., *supra* note 33.

94 *See id.* at 11-12.

95 *Id.* at 17.

in the industry's short term, but would certainly hinder any meaningful emissions reductions.

A rate-based benchmark could be chosen by the regulator, or it could be determined by the average industry emissions rate – ¾ tonne CO_2e/MWh including the above-mentioned generators.[96] Those participants with better emissions rates than the industry benchmark would be awarded more allowances than participants with rates above it. From the illustration above, A would receive fewer allowances than necessary to cover its emissions, G would receive more allowances than necessary, and B would receive the correct amount since its emissions rate is the same as the industry average. In such a scheme, A would be forced to purchase the allowances it needed to cover its emissions from G, who would receive an economic benefit of having better emissions rates and being able to sell its excess allowances.

Benchmarking encourages all participants in the industry to improve their emissions rates to get below the benchmark and receive more allowances.[97] It allots proportionally more allowances to participants under the benchmark and less to those over the benchmark.[98] This encourages participants above the benchmark to reduce so that they need to purchase fewer allowances and also encourages participants below the benchmark to continue reducing for the prospect of receiving excess allowances that can then be sold in the market.[99] This can have positive and negative considerations for participants endeavoring to reduce their emissions rates.

In the positive, benchmarking rewards early actors who previously invested in improved technology. Whereas early actors are punished under grandfathering, benchmarking rewards early actors because their investments, which helped reduce their emissions rate, lead to allocation of more allowances.[100] An early actor may then receive more allowances than it needs and benefits from selling to participants who have not made similar investments.[101] Additionally, benchmarking does not hinder entrance into the industry. Unlike grandfathering, which awards rents to incumbent participants and forces new entrants to the industry to purchase allowances from an incumbent,[102] benchmarking treats all industry participants – the incumbents and the new entrants – identically: all participants are evaluated based upon their relationship to the emission rate standard set for the industry.

In the negative, achieving environmental goals is less certain under benchmarking than other methods of allocation.[103] Benchmarking can lead to an increase in total emis-

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96 Policymakers could choose to include generators without emissions in the allocation, as this would provide a financial incentive and support the growth of more renewable and clean technologies in the industry, which may not be competitive without such support.

97 Gagelmann, *supra* note 19, at 71.

98 *Id.*

99 *Tools of the Trade*, *supra* note 16, at 2-9.

100 Gagelmann, *supra* note 19, at 71.

101 *Id.*

102 Even where there is a reserve of allowances for future entrants, incumbents still retain an advantage.

103 *Cf.* Baron & Philibert, *supra* note 15, at 27, 165; *but see* Rong-Gang Cong & Yi-Ming Wei, *Potential Impact of (CET) Carbon Emissions Trading on China's Power Sector: A Perspective from Different Allowance Allocation Options*, 35 Energy 3921, 3929 (2010) (finding that

sions from an industry.[104] Emissions may increase from decisions to increase production by those participants with "low" emissions rates.[105] Total emissions may also increase from simple growth of the regulated industry; because benchmarking places no hindrance on entrants into the industry, it is foreseeable that there would be more newcomers than in an industry with an indirect entrance barrier. Typically, policymakers can adjust the benchmark to meet changing environmental goals,[106] but this brings its own problems. It has the potential to instill uncertainty in participants regarding future regulations and in long-term business and investment decisions.[107] Additionally, in vulnerable industries, with the economic need to maintain production and little ability to improve their emissions rate, imposing an increasingly more strict benchmark could force participants out of business. To avoid unintended economic effects, the regulator of a benchmarked allowance allocation system should understand the economic burdens on the industry before implementing a benchmark. Unlike auctioning, unfortunately, benchmarking reveals very little information about the costs to participants in an industry,[108] which would aid in the policymakers' benchmark determination.

No participant in a benchmarking scheme is able to attain the full economic benefit from decreasing its rates when all participants attempt to reduce emissions rates.[109] This occurs because all participants are provided incentives to lower emissions rates, and if the entire industry improves, then the ranking of participants and the allocation of allowances would remain nearly unchanged.[110] A single participant would only succeed in gaining a greater allocation if it is able to make greater reductions in its emissions rate than other participants.[111] For some participants, it may be impossible to gain a greater allocation. Emissions-intensive industries will remain emissions-intensive, and if these must compete with non-emissions-intensive industries on the same benchmark, they will be threatened. This is usually solved by dividing participants into sectors, each of which would have its own benchmark (e.g. fossil-fuel generators would be separate, paper producers would be separate, etc.).

Benchmarking has been successfully used in reduction schemes throughout the world. In the United States, it was used to phase out lead in gasoline[112] and proposed as an allocation method for reducing NOx emissions in 2004.[113] Rate-based allocations are equivalent to regulations based upon emissions intensities, which have been emphasized in climate regulations in the United Kingdom.[114] Even as early as 2002, President

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benchmarking should be more environmentally friendly, and therefore more capable of achieving emissions reductions, than grandfathering).

104 BARON & PHILIBERT, *supra* note 15, at 27.

105 *See Tools of the Trade*, *supra* note 16, at 2-9.

106 *Id.*

107 *See id.*

108 *See infra* Section III.A

109 Fischer, *supra* note 58, at 45.

110 *See id.* Such a dramatic focus on reducing emissions rates within the industry is a strong reason for policymakers to employ benchmarking.

111 *See id.*

112 *Tools of the Trade*, *supra* note 16, at 2-9.

113 Burtraw et al., *supra* note 33, at 5.

114 Fischer, *supra* note 58, at 44.

George W. Bush's climate change policy emphasized the importance of emissions intensity.[115]

As a method of allocation, benchmarking falls short of the other methods for environmental reasons. Its Achilles' heel is its inability to guarantee that environmental goals will be met. It is likely to be used, therefore, in conjunction with another method, bringing its positive aspects of encouraging industry-wide emissions-rate improvements and benefits to early actors.

C. Hybrid Allocation

Many of the inadequacies of the above methods of allocation could be remedied by combining elements of each to suit the needs and circumstances of the scheme. Any combination of auctioning or free allocation could be implemented.[116] The goal of hybrid allocation is to achieve a distribution that would maximize the benefits while minimizing the shortcomings of each method. This means preserving the reductions and economic efficiency under auctioning,[117] political feasibility under grandfathering,[118] and reward to the most emissions-efficient industry participants under benchmarking,[119] as well as endeavoring to eradicate the economic damage done to the most vulnerable industries under auctioning,[120] extreme overcompensation to incumbents under grandfathering,[121] and environmental uncertainty in attaining reduction goals under benchmarking.[122]

First, a scheme must strike a balance between its efficiency and the political feasibility necessary to start a cap-and-trade scheme.[123] On one hand, without obtaining political support from the industry to be regulated, measures to curb emissions may never be undertaken.[124] On the other, the overall cost of implementing reductions could hinder regulated industries economically and cause ripples throughout the economy.[125] Grandfathering sufficient allowances to compensate for initial profit losses and auctioning the remaining allowances can strike a balance.[126]

Concern then shifts to the portions of allowances that should be grandfathered and auctioned. The allotment would assist only those industries that are most vulnerable, due to their high emissions intensities, to the implementation of a cap-and-trade scheme

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115 The White House, President George W. Bush, *President Announces Clear Skies & Global Climate Change Initiatives*, Feb. 2002, *available at* http://georgewbush-whitehouse.archives.gov/news/releases/2002/02/20020214.html; *see* The White House, President George W. Bush, *Global Climate Change Policy Book: Executive Summary*, Feb. 2002, *available at* http://georgewbush-whitehouse.archives.gov/news/releases/2002/02/climatechange.html (indicating reducing emission intensity as a national goal).

116 Baron & Philibert, *supra* note 15, at 27.

117 *See supra* Section III.A.

118 *See supra* Section III.B.1.

119 *See supra* Section III.B.2.

120 *See supra* Section III.A.

121 *See supra* Section III.B.1.

122 *See supra* Section III.B.2.

123 *See* Goulder et al., *supra* note 47, at 164.

124 *See id.*

125 *See* Goulder et al., *supra* note 47, at 164; *see supra* Sections III.A and III.B.1.

126 *See* Goulder et al., *supra* note 47, at 164.

with auctioning, as most industries and participants should be able to withstand the burdens of auctioning.[127] Despite these industries' vulnerability, overcompensation would be counter-productive to achieving a cost-effective scheme.[128] The question then becomes: how many allowances must be grandfathered to safeguard those vulnerable participants? This is dependent upon two variables.[129] First, participants will not require a large amount of grandfathered allowances if they have the ability to pass on the costs of compliance to consumers.[130] This, in turn, depends upon the elasticity of demand for the participant's products. If demand is inelastic, consumers will continue to pay higher and higher prices for the same product. But if demand is elastic, consumers will purchase a substitute product at the slightest increase in price. This also affects leakage and system linkage, discussed later.[131] Second, participants will require a greater number of grandfathered allowances if the required level of reduction is high and reductions are difficult to undertake.[132] When the burden is slight, however, participants will not need as much support and fewer allowances need to be grandfathered.[133]

Attempts to find the hybrid allocation scheme to address these concerns have revealed that the profits of the most vulnerable industries and participants can be preserved while auctioning "the lion's share of allowances" and allocating only a small amount by grandfathering.[134] Studies find that 50%, at most, should be allocated according to grandfathering[135] with most surmising that a much smaller percentage – between 9% and 21% – should be grandfathered.[136] One particular study explains that the most vulnerable carbon-intensive industries like coal-fired power plants and coal mines would require the greatest share of grandfathered allowances – requiring 24% grandfathering – but other vulnerable industries would not require such large amounts, resulting in a total grandfathering of less than 14% of all allowances.[137] This means that a likely politically feasible *and* efficient distribution could be reached at somewhere near 14% grandfathering and 86% auctioning.

If a cap-and-trade scheme were to continue to allocate a portion of allowances for free, over time this would significantly overcompensate the recipients.[138] A scheme can be designed to remedy this by slowly transitioning to a scheme that allocates fewer allowances by grandfathering until all allowances are auctioned.[139] Participants are able to

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127 *See id.*, at 171-72; *see also* Hepburn, *supra* note 6, at 372-73.
128 Robert M. Stavins, *Addressing Climate Change with a Comprehensive U.S. Cap-and-Trade System*, 24 Oxford Review of Econ. Policy 298, 306 (2008).
129 *See* Goulder et al., *supra* note 47, at 164.
130 *See id.*
131 *See infra* Section V.B.1
132 *See* Goulder *et al.*, *supra* note 47, at 164.
133 *See id.*
134 *Id.* at 162.
135 Hepburn, *supra* note 6, at 379-80 (internal citations omitted); Stavins, *supra* note 36, at 207.
136 *See* Goulder et al., *supra* note 47, at 162, 171-73; Hepburn, *supra* note 6, at 379-80 (internal citations omitted); Stavins, *supra* note 36, at 207.
137 Goulder et al., *supra* note 47, at 171-72.
138 Stavins, *supra* note 36, at 207.
139 *Tools of the Trade*, *supra* note 16, at 3-18.

adjust to the restrictions placed upon their emissions over the long-term,[140] so a fully-disclosed transition away from grandfathering – after a period of time sufficient to protect those vulnerable industries until they have developed new emissions-reducing technologies and processes – would eliminate the justification for providing free rents to these participants.

Benchmarking could be included in a scheme that allocates according to grandfathering and auctioning, the purpose of which would be to benefit those participants who have previously invested in emissions reductions. Regulators and policymakers should want to reward early actors within these industries. Practically, these early actors should expect a benefit from their early actions because their emissions intensity will be improved beyond that of the others in the industry. Of course, within the sectors that would only be allowed to receive allowances through auctioning, this benefit will already be realized from the lesser number of allowances that these participants have to buy at auction.

The greatest need for benchmarking would be in the vulnerable industries – those sectors that would most probably receive grandfathered allowances for the reasons stated above – because the harm to early actors would be great. These early actors would be affected by: (a) having used capital to invest in emissions-reducing technology; (b) receiving fewer allowances than an (hypothetically) identical participant that did not make such investments; (c) possessing, therefore, fewer allowances to trade in a market; and (d) needing to reduce their emissions further at an additional cost, which would likely be greater than the cost their competitors would incur.[141] Instead of grandfathering all of the allowances in these vulnerable sectors, progressively implementing benchmarking would duly compensate and reward those participants with low emissions rates or who took early action.

Allocating all, or a portion, of those allowances reserved for grandfathering by benchmarking instead could accomplish this. Within a vulnerable industry, then, participants would receive the amount of grandfathered allowances necessary to preserve their profits minus those few allowances that would be redistributed based upon the industry-specific benchmark emissions rate, whereby those early actors with better emissions rates benefit from an allocation of more allowances than they need, which can then be sold to others. Or, if all allowances were benchmarked, the emissions-efficient and early actors would benefit even more. Profits from reselling these benchmarked allowances would compensate early actors for their investments that would otherwise go uncompensated.

Beginning in 2013, a new approach taken in the EU ETS implements a similar hybrid scheme.[142] It differs from the above illustration in that industries in the EU ETS have already garnered a significant time period of grandfathering, which would have

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140 *See* Stavins, *supra* note 36, at 202, 207. It has been conversely argued, however, that transitioning from grandfathering to auctions will impact participants' support of initially implementing a scheme because it will make the economic outlook for these participants worse than under a system that simply taxed emissions. *See* Helm, *supra* note 13, at 230.

141 Its competitors need only make the investments the early actor had previously made, while the early actor would have to undertake new investments in emission reductions that may be comparatively more expensive to obtain.

142 *See infra* Section IV.A and accompanying notes.

given increased profits to participants. It is likely that these participants have already received enough benefit from the grandfathering of allowances that the gradual transition to auctioning will unjustifiably overcompensate these industries.

In conclusion, it can be seen that combining various methods of allocation can assuage concerns both from the regulator about political feasibility, efficiency, and reductions certainty, and from industry participants who worry about the economic effect of a cap-and-trade scheme. In particular, using auctioning to allocate the majority of allowances (about 86%) ensures efficiency, while reserving a small percentage of allowances for distribution via grandfathering, benchmarking, or a combination of the two (about 14%) to those industries most vulnerable to emissions regulations, would present a very well-rounded plan for allocating allowances in a cap-and-trade scheme.

IV. CARBON MARKETS & ALLOCATIONS

In 1992, representatives of nations around the world gathered in Rio de Janeiro at the United Nations Conference on Environment and Development. Amongst other things under consideration at the conference were the rise in global temperatures, climate change, and possible responses to these phenomena and their impacts.[143] The conference produced the United Nations Framework Convention on Climate Change (UNFCCC), a treaty ratified by 195 nations.[144] Thus began a top-down approach to combating climate change, characterized by binding international agreements, applicable within domestic systems, to cooperate in emissions reductions. The reverse, a bottom-up approach, is characterized by non-binding international agreements, with actions taken domestically by nations that may progressively constitute broader international consensus.

At the Conference of the Parties of the UNFCCC in 1997, the Kyoto Protocol was agreed.[145] It represents the most strident attempt to create a binding, top-down architecture for the UNFCCC nations to collaborate in widespread emissions reductions. Parties to the Kyoto Protocol undertook hard commitments to reduce emissions below 1990 levels, which were to be achieved during the commitment period 2008-2012.[146] Most of the European nations committed to reducing emissions to 92% of their 1990 levels, Japan and Canada committed to 94%, and, although not a party to the Kyoto Protocol, the United States' prescribed target was 93%.[147]

The Kyoto Protocol also created mechanisms, which are important to reducing global emissions and spurring sustainable development. The flexible mechanisms created

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143 United Nations Framework Convention on Climate Change, Mar. 21, 1994, No. 30822, *available at* http://unfccc.int/resource/docs/convkp/conveng.pdf [hereinafter UNFCCC]; *see also* United Nations Framework Convention on Climate Change, *Background on the UNFCCC: The International Response to Climate Change*, http://unfccc.int/essential_background/items/6031.php (last visited Sept. 19, 2014).

144 UNFCCC, *supra* note 143.

145 Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 22 (1998) [hereinafter Kyoto Protocol].

146 *Id.* at Art. 3(7).

147 *Id.* at Annex B.

were: an emissions trading system amongst developed (Annex I) nations;[148] Joint Implementation (JI);[149] and the Clean Development Mechanism (CDM).[150] Through the JI and CDM, emission reduction units (ERUs) and certified emissions reductions (CERs) can be earned for sponsoring projects in developed, JI or developing, CDM, nations that have reduced emissions in addition to or beyond those emissions reductions that would normally occur from such a project.[151] The inclusion of the emissions trading system was most important because it permitted Annex I nations to trade, transfer, and acquire emissions credits, earned through the actions of other Annex I nations, which could then serve to fulfill the nation's Kyoto commitments.[152]

However, the Kyoto Protocol cannot be considered a success in bringing about meaningful emissions reductions. Perhaps due mostly to the ever-present rift between nations regarding the impact of defined reduction commitments to the world's largest established and emerging economies and others' comparative responsibilities to reduce emissions regarding their historically-accumulated emissions or their ever-increasing present emissions, the largest emitters in the world – the United States, China, and India – were not bound to reduce emissions.[153] Evidence of the Kyoto Protocol's failure amongst participating nations, and the reality for potential economic detriment from compliance with it, is the withdrawal of commitments by Canada, self-justified by the $13.6 billion (U.S.) cost if it retained its commitment to the Kyoto Protocol.[154]

When the time came for further international, top-down commitments in Copenhagen in 2009, the nations balked.[155] Without the implementation of an international scheme to guide global emissions reductions, domestic cap-and-trade schemes have emerged and may be the beginning of a bottom-up approach to the establishment of a global carbon market created from linking the domestic markets.[156] In the absence of a top-down carbon market architecture, the linking of established domestic carbon mar-

148 *Id.* at Art. 17.
149 *Id.* at Art. 6.
150 *Id.* at Art. 12.
151 *Id.* at Arts. 6 & 12.
152 *See id.* at Arts. 6, 12, 17.
153 *See 'Common But Differentiated Responsibilities' Must Never Be Compromised: Premier*, CHINA.ORG.CN (Dec. 18, 2009), www.china.org.cn/environment/Copenhagen/2009-12/18/content_19094598.htm (last visited Sept. 19, 2014); Mary J. Bortscheller, *Equitable But Ineffective: How the Principle of Common But Differentiated Responsibilities Hobbles the Global Fight Against Climate Change*, 10 SUSTAINABLE DEV. L. & POL'Y 49, 50 (2010); Paul G. Harris, *Common But Differentiated Responsibility: The Kyoto Protocol and United States Policy*, 7 N.Y.U. ENVT'L. L.J. 27, 38 (1999); Cass R. Sunstein, *The World vs. the United States and China? The Complex Climate Change Incentives of the Leading Greenhouse Gas Emitters*, 55 U.C.L.A. L. REV. 1675, 1680 (2008); Kyoto Protocol, *supra* note 145, Annex B.
154 *Canada to Withdraw from Kyoto Protocol*, BBC NEWS (Dec. 13, 2011), http://www.bbc.co.uk/news/world-us-canada-16151310 (last visited Sept. 19, 2014).
155 *See* U.N. Framework Convention on Climate Change, Copenhagen, Den., Dec. 7-19, 2009, *Report of the Conference of the Parties*, dec. 1/CP.15, Doc. FCCC/CP/2009/11/Add.1, Addendum 1 (Mar. 2010).
156 *See* Christian Flachsland, Robert Marschinski, & Ottmar Edenhofer, *Global Trading Versus Linking: Architectures for International Emissions Trading*, 37 ENERGY POL'Y 1637, 1639-44 (2009).

kets – wherein participants could meet reduction obligations by submitting allowances from any system – could be a bottom-up approach to creating a global system to reduce emissions. This development has to happen in two stages. First, domestic carbon markets need to be established.[157] The following sections address this first step, briefly describing and analyzing five mandatory cap-and-trade schemes (the EU ETS, Regional Greenhouse Gas Initiative, California, Québec, and New Zealand)[158] and the chosen allocation method in each scheme. Second, policies that permit the linking of two or more systems must be adopted.

A. EUROPEAN UNION EMISSIONS TRADING SYSTEM

The EU ETS was created in 2003.[159] It covers 45% of total greenhouse gas emissions in the EU.[160] The nations included in the scheme are all twenty-seven EU countries, plus an additional four countries: Croatia (joined 2013); Iceland (joined 2008); Liechtenstein (joined 2008); and Norway (joined 2008).[161] The industries covered are power generators with thermal inputs exceeding 20 Megawatts (MW), the manufacturing industry, and the aviation industry.[162] Two trading period have come and gone. The first trading period, during the years 2005-2007, was a test period, from which lessons could be learned as to how to more effectively structure the trading system.[163] The second trading period spanning 2008-2012 was characterized by the entrance of three new countries to the EU ETS, a reduction in allowances allocated, and the inclusion of aviation in 2012.[164] The current trading period, the third trading period, will last from 2013-2020.[165] It marked a significant reform to the EU ETS with a switch in the allocation method.[166]

During the first two periods, allowances were grandfathered to participants.[167] Member states prepared NAPs, which stated the proposed number of allocations in each na-

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157 *See generally* ZhongXiang Zhang & Andries Nentjes, *International Tradable Carbon Permits as a Strong Form of Joint Implementation*, University of Groningen, Netherlands (1997), http://mpra.ub.uni-muenchen.de/13300/1/MPRA_paper_13300.pdf, *reprinted in* POLLUTION FOR SALE: EMISSIONS TRADING AND JOINT IMPLEMENTATION, 322-42 (J. Skea & S. Sorrel, eds., 1999).

158 *See* N.Z. MINISTRY FOR THE ENV'T , *Climate Change Information: International Examples of Emissions Trading*, (Nov. 16, 2012), http://www.climatechange.govt.nz/emissions-trading-scheme/about/international-examples.html (last visited Sept. 19, 2014).

159 *See* Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003, *establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC*, EUR. PARL. DOC., 2003 O.J. (L 275) 32 (Oct. 25, 2003) [hereinafter *EU ETS Directive 2003*].

160 EUROPEAN COMM'N , *The Emissions Trading System (EU ETS) Factsheet*, (Oct. 2013) *available at* http://ec.europa.eu/clima/publications/docs/factsheet_ets_en.pdf [hereinafter *EU ETS Factsheet*].

161 *Id.*

162 *Id.*; *EU ETS Directive 2003, 2009 Consolidated Version*, *supra* note 73.

163 Helm, *supra* note 13, at 224; *EU ETS Factsheet*, *supra* note 160.

164 *EU ETS Factsheet*, *supra* note 160.

165 *Id.*

166 *Id.*

167 Helm, *supra* note 13, at 224. The 2003 EU ETS Directive states that during the first trading period, each Member State (which was in charge of issuing allowances to participants in its

tion.[168] Member states overestimated the number of allowances their nation's participants required to cover their historical emissions.[169] Highlighting one of the dangers of grandfathering allowances, when knowledge spread of the excessive amounts of allowances, the market collapsed as the price of an allowance dropped from thirty Euros in 2006 to nearly zero in 2007.[170] Designers of the EU ETS learned a lesson and implemented reforms at the start of the third trading period in 2013 by transitioning from free allocation to auctioning, and auctioning as many allowances as practicable.[171]

In 2013, just more than 40% of allowances were projected to be auctioned, with this percentage increasing until all allowances are auctioned in 2027.[172] No allowances will be grandfathered. Instead, auctioning and benchmarking will be the primary methods of allocation.

In particular, 15% of the more than 200 million allowances[173] available to the aviation industry will be auctioned.[174] A reserve of 3% of allowances will be kept for new entrants or for operators who drastically increase operations.[175] The remaining 82% of allowances will be freely allocated according to an aviation industry benchmark.[176]

For non-aviation industries, the allocation is more complicated. More than 2 billion allowances will be available for allocation in 2013.[177] An entrants' reserve saves 5% of these allowances for new entrants.[178] Power generators are not granted allowances through benchmarking, unless they are determined to be significantly vulnerable.[179] Benchmarks are determined for each sector from the average of the most efficient 10% of participants in the sector.[180] All participants meeting this benchmark will receive 80% of allowances needed to cover their emissions.[181] For sectors determined to be signifi-

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territory) must "allocate at least 95% of the allowances free of charge," and that during the second trading period, each Member States must "allocate at least 90% of the allowances free of charge." *EU ETS Directive 2003, supra* note 159, at art. 10.

168 *EU ETS Directive 2003*, *supra* note 159, at art. 9.

169 *Id.*

170 *See id.*; *see also* CINNAMON PIÑON CARLARNE, CLIMATE CHANGE LAW AND POLICY: EU AND US APPROACHES, 172 (2010); Helm, *supra* note 13, at 224.

171 *EU ETS Factsheet*, *supra* note 160.

172 *Id.*

173 EUROPEAN COMMISSION, *Climate Action: Allowances and Caps*, http://ec.europa.eu/clima/policies/ets/cap/index_en.htm (last visited Sept. 19, 2014).

174 *EU ETS Directive 2003, 2009 Consolidated Version, supra* note 73, at Art. 3d(2).

175 *Id.* at Art. 3f(1).

176 *Id.* at Arts. 3e(3)(d) & 3e(3)(e). The aviation industry benchmark is .00642186914222035 allowances per tonne-kilometer of emissions. European Commission Decision 2011/638/EU, On Benchmarks to Allocate Greenhouse Gas Emission Allowances Free of Charge to Aircraft Operators Pursuant to Article 3e or Directive 2003/87/EC of the European Parliament and of the Council, 2011 O.J. (L 252) 20 (Sept. 28, 2011).

177 EUROPEAN COMMISSION, *supra* note 173.

178 *EU ETS Directive 2003, 2009 Consolidated Version, supra* note 73, at Art. 10a(7). Unused allowances herein will be auctioned.

179 *Id.* at Art. 10a(1); *EU ETS Factsheet, supra* note 160.

180 *EU ETS Directive 2003, 2009 Consolidated Version*, *supra* note 73, at Art. 10a(2).

181 *Id.* at 10a(11); *EU ETS Factsheet*, *supra* note 160. The Directive states that 80% of allowances will be allocated for free according to the benchmarks, but the *EU ETS Factsheet*

cantly vulnerable, participants meeting the benchmark will receive 100% of allowances needed to cover their emissions.[182] Participants not meeting the benchmark, in both cases, will receive proportionately fewer allowances.[183] All remaining allowances – those not allocated via benchmarking or to the new entrants' reserve – are auctioned.[184]

As compared with the hybrid allocation scheme presented earlier,[185] the EU ETS auctions far less of its allowances than would be recommended, but the percentage of allowances that are auctioned will increase over time. Similarly, it provides for benchmarking in those vulnerable industries, where the emissions-efficient and early actors will receive a benefit from receiving 100% of their need allocation if they meet the benchmark. Finally, it goes far, perhaps too far, in compensating non-vulnerable industries through its use of benchmarking in these sectors rather than auctioning.

B. REGIONAL GREENHOUSE GAS INITIATIVE

The Regional Greenhouse Gas Initiative (RGGI) was the first cap-and-trade scheme in the United States to target greenhouse gas emissions.[186] It encompasses nine east-coast states.[187] It held its first auction on September 25, 2008, and began its first compliance period on January 1, 2009.[188] The RGGI covers carbon dioxide emissions from power plants with a capacity of twenty-five MW or greater.[189] States may self-determine how to allocate allowances.[190] Delaware, in particular, began by auctioning nearly 60% of its allowances, but plans to auction all allowances by 2014.[191] On the other hand, New York offered more than 94% of allowances at auction,[192] reserving just over 5% for early-actors, voluntary renewable energy set-asides, and for long term contract set-

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clarifies that this is interpreted to mean that *each* participant meeting the benchmark will a sufficient amount of allowances to cover 80% of its emissions.

182 *EU ETS Directive 2003, 2009 Consolidated Version, supra* note 73, at Art. 10a(12).

183 *EU ETS Factsheet*, *supra* note 160.

184 *EU ETS Directive 2003, 2009 Consolidated Version*, *supra* note 73, at Art. 10(1).

185 *See supra* Section III.C and accompanying notes.

186 Reg'l Greenhouse Gas Initiative, *Welcome*, http://rggi.org (last visited Sept. 19, 2014).

187 *Id.*; CARLARNE, *supra* note 170, at 73.

188 CARLARNE, *supra* note 170, at 73; Reg'l Greenhouse Gas Initiative, *Auction 1*, http://rggi.org/market/co2_auctions/results/Auctions-1-17/117 (last visited Sept. 19, 2014).

189 REGIONAL GREENHOUSE GAS INITIATIVE, *Memorandum of Understanding*, 1 (Dec. 20, 2005), *available at* http://rggi.org/docs/mou_final_12_20_05.pdf [hereinafter *Memorandum of Understanding*]; REGIONAL GREENHOUSE GAS INITIATIVE ,*RGGI Fact Sheet 2012*, (Sept. 28, 2012) *available at* http://rggi.org/docs/Documents/RGGI_Fact_Sheet_2012_09_28.pdf.

190 *Memorandum of Understanding*, *supra* note 189, at 2(G); *see* REGIONAL GREENHOUSE GAS INITIATIVE, *Allowance Allocation*, http://rggi.org/design/overview/allowance-allocation (last visited Sept. 19, 2014); REGIONAL GREENHOUSE GAS INITIATIVE, *Program Design*, http://rggi.org/design (last visited Sept. 19, 2014).

191 Regional Greenhouse Gas Initiative, *First Control Period CO2 Allowance Allocation* (Jun. 12, 2014), *available at* http://rggi.org/docs/CO2AuctionsTrackingOffsets/Allocation/FCP_Allowance-Allocation.pdf; CO_2 Budget Trading Program, 1147 DEL. REGS. 28 (Nov. 11, 2008), *available at* http://regulations.delaware.gov/AdminCode/title7/1000/1100/1147.pdf.

192 Regional Greenhouse Gas Initiative, *First Control Period CO2 Allowance Allocation* (Jun. 12, 2014), *available at* http://rggi.org/docs/CO2AuctionsTrackingOffsets/Allocation/FCP_Allowance-Allocation.pdf.

asides.[193] New York's implementing legislation, like many of the RGGI states, is closely modeled off the RGGI model rule.[194] This means, generally, that many of the states have similar set-asides or reserves of allowances that are not auctioned. Overall, however, in the first control period, the RGGI states offered over 89% of available allowances for sale at auction, with the remainder being set-aside for free allocation.[195] As compared with the hybrid allocation scheme discussed earlier,[196] RGGI is very similar in that it auctions nearly all of its allowances and allocates only a handful via free allocation (although the states choose differing methods for freely distributing allowances).

C. California

California began its own cap-and-trade scheme on January 1, 2013.[197] It covers "electric utilities and large industrial facilities" starting in 2013, and "distributors of transportation, natural gas and other fuels" starting in 2015.[198] It has three compliance periods: 2013-2014, 2015-2017, and 2018-2020.[199] The second compliance period will cover significantly more industries,[200] achieving coverage of 85% of greenhouse gas emissions in California.[201]

In 2013, California issued a total of 162.8 million allowances.[202] Its allocation combines benchmarking, auctioning, and, to a small degree, grandfathering. The California scheme also holds allowances in reserve: 1% in an Allowance Price Containment Reserve (which acts as a price ceiling for tradable allowances, with allowances being made available at a predetermined allowance price) during the first period, 3% during the second period, 7% during the third period,[203] and 0.5% in a reserve for Voluntary Renewable Electricity during the first period and .25% in subsequent periods.[204] The few allowances that are grandfathered are distributed to Electricity Distribution Utilities – for the purpose of benefitting consumers – to cover approximately 90% of average historical emissions and are reduced yearly according to a cap formula.[205]

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193 *Id.*; CO(2) Budget Trading Program, N.Y. Comp. Codes R. & Regs. tit. 6, §§ 242-5.1 – 242-5.3 (2012).

194 Regional Greenhouse Gas Initiative, *Regional Greenhouse Gas Initiative Model Rule, Part XX CO_2 Budget Trading Program* (Dec. 31, 2008), *available at* http://rggi.org/docs/Model%20Rule%20Revised%2012.31.08.pdf.

195 Regional Greenhouse Gas Initiative, *First Control Period CO2 Allowance Allocation* (Feb. 27, 2012), *available at* http://rggi.org/docs/Allowance-Allocation.pdf.

196 *See supra* Section III.C.

197 California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms, Cal. Code Regs. tit. 17, § 95840(a) (2012).

198 California Envtl. Prot. Agency: Air Resources Bd., *Overview of ARB Emissions Trading Program* (October 20, 2011), *available at* http://www.arb.ca.gov/newsrel/2011/cap_trade_overview.pdf [hereinafter *ARB Overview*].

199 Cal. Code Regs. tit. 17, § 95840(a)-(c) (2013).

200 *See* Cal. Code Regs. tit. 17, §§ 95841, 95812(d)-(e) (2013).

201 *ARB Overview*, *supra* note 198.

202 Cal. Code Regs. tit. 17, § 95841 (2013).

203 Cal. Code Regs. tit. 17, § 95870(a) (2013).

204 *Id.* § 95870(c).

205 *Id.* §§ 95870(d), 95892, Table 9-2, & Table 9-3; *ARB Overview*, *supra* note 198.

Benchmarking is used to allocate allowances to refineries[206] and also to industrial facilities.[207] The benchmarking of non-vulnerable industrial facilities is made in one of two ways: either based upon the industry's emissions efficiency per unit of output or upon the emissions efficiency regarding the amount of energy consumed and electricity output.[208] To protect vulnerable industrial sectors, allowances are benchmarked with the increase of an industry assistance factor.[209] Regardless of the formula used, no participant is permitted to receive more allowances than that required to cover 110% of its historical emissions.[210] The remaining allowances available for distribution are allocated through auctioning,[211] with an auction floor price of ten dollars per allowance and a 5% yearly increase.[212]

This scheme will be most similar to the hybrid allocation scheme discussed earlier once, through practice, it is found that the lion's share of allowances is auctioned. While it uses benchmarking for non-vulnerable industries like the EU ETS, it is more similar to the hybrid allocation proposed by acknowledging that the most emissions-efficient in vulnerable sectors will receive more allowances than necessary to cover their allowance needs – meaning that, these participants will receive the benefit of selling extra allowances on the market.

D. QUÉBEC

Québec became the first Canadian province to proceed with its own cap-and-trade program, beginning January 1, 2013.[213] It has three compliance periods: 2013-2014, 2015-2017, and 2018-2020.[214] In the first period, the scheme will only cover industrial and electricity sectors, amounting to nearly eighty participants,[215] but the coverage of

206 CAL. CODE REGS. tit. 17, §§ 95891(a), 95891(d), 95870(e)(2), & Table 8-1.
207 *Id.* §§ 95890(a), Table 8-1, Table 9-1.
208 *Id.* §§ 95891(b), 95891(c), Table 8-1, & Table 9-1.
209 *Id.* §§ 95870(e)(3) & Table 8-1.
210 *Id.* § 95891(c)(2).
211 CAL. CODE REGS. tit. 17, § 95870(f) (2011).
212 *Id.* § 95911(b)(6).
213 *Regulation Respecting a Cap-and-Trade System for Greenhouse Gas Emission Allowances: Overview*, Ministère du Développement durables, de l'Environnement, de la Faune et des Parcs, Québec, 5 (Dec. 21, 2012), *available at* http://www.arb.ca.gov/regact/2012/capandtrade12/2nd15dayatta5.pdf [hereinafter *Overview: Québec Cap-and-Trade*].
214 Regulation Respecting a Cap-and-Trade System for Greenhouse Gas Emission Allowances, R.R.Q., c. Q-2, r. 46.1, § 3(12) (Can.), *available at* http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=3&file=/Q_2/Q2R46_1_A.HTM [hereinafter *Québec Cap-and-Trade Regulation*]; INT'L EMISSIONS TRADING ASS'N, SUMMARY OF QUÉBEC'S REGULATION RESPECTING A CAP-AND-TRADE SYSTEM FOR GREENHOUSE GAS EMISSION ALLOWANCE, CLIMATE CHALLENGES – MARKET SOLUTIONS (Feb. 23, 2012), *available at* http://www.ieta.org/assets/ieta_quebec%20cap%20and%20trade%20summary.pdf.
215 INT'L EMISSIONS TRADING ASS'N, *supra* note 214; *Overview: Québec Cap-and-Trade*, *supra* note 213, at 5.

the scheme will be expanded in the second period to include 85% of greenhouse gas emissions in Québec, similar to California's scheme.[216]

Québec has chosen to allocate its allowances based upon auctioning and benchmarking.[217] It holds allowances in reserve (1% from the first period, 4% from the second period, 7% from the third period, and 4% from any subsequent period) for the purpose of compensating, at various thresholds, for spikes in the price of allowances (effectively, a price ceiling).[218] Implementing a different technique to compensate early actors than other schemes, Québec provides an allocation to all early actors provided that the participant's emissions intensity is better than the relevant industry's benchmarked emissions intensity.[219] Benchmarked allowances are allocated only to vulnerable sectors and are based upon their emissions intensity.[220] The rest of allowances are auctioned via sealed bids, with a price floor of ten dollars per allowance (increased yearly by 5%).[221]

E. New Zealand Emissions Trading System

The New Zealand Emissions Trading System (NZ ETS) was created in 2002[222] and commenced in 2008 when the forestry industry was included in the system.[223] The system covers forestry, fisheries, liquid fossil fuels (transport fuels), stationary energy (electricity production), synthetic gases, waste, industrial processes, and will include agriculture beginning in 2015.[224] It allocates its allowances, called New Zealand units (NZUs), through a combination of benchmarking and auctioning.[225] Allowances are benchmarked to industrial sectors deemed to be moderately or highly emissions-intensive.[226] These sectors receive allowances based upon a product-specific industry benchmark combined with a yearly-decreasing assistance factor, which is higher for the more emissions-intensive sectors.[227] The NZ ETS gives allowances to forestry and fisheries without regard to emissions. The system awards participants in forestry based upon acre-

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216 *Overview: Québec Cap-and-Trade*, *supra* note 213, at 6. The second period's increased coverage is evidenced by the cap increase from 23.7 million tonnes of emissions in 2013 to 63.6 million tonnes in 2015. Int'l Emissions Trading Ass'n, *supra* note 214.

217 *Québec Cap-and-Trade Regulation*, *supra* note 214, at §§ 39-55.

218 *Id.* at §§ 38, 56-58.

219 *Id.* at §§ 65-69.

220 Int'l Emissions Trading Ass'n, *supra* note 214; *Québec Cap-and-Trade Regulation*, *supra* note 214, at §§ 39-44, Appendix C.

221 *Québec Cap-and-Trade Regulation*, *supra* note 214, at § 49.

222 Climate Change Response Act 2002, *amended* 2006, 2008, 2009, 2009, 2012 (N.Z.), *available at* http://www.legislation.govt.nz/act/public/2002/0040/latest/DLM158584.html [hereinafter N.Z. Climate Change Response Act].

223 *See Climate Change Information: Emissions Trading: About Obligations*, New Zealand Ministry for the Environment (Dec. 16, 2011), http://www.climatechange.govt.nz/emissions-trading-scheme/obligations/ (last visited Sept. 19, 2014).

224 *Id.*; N.Z. Climate Change Response Act, *supra* note 222, at § 74.

225 The minister has the power to sell allowances at auction, but no auction has yet taken place. N.Z. Climate Change Response Act, *supra* note 222, at §§ 6A(a), 30G(1)(p), 30GA.

226 N.Z. Climate Change Response Act, *supra* note 222, at §§ 81-84.

227 *Id.* As with agriculture, participants are temporarily entitled to only half of this allocation. *Id.* at § 84A.

age[228] to encourage the continued preservation and regeneration of New Zealand's forests (which act as a carbon sink), and also to fisheries based upon each fishery's size and the sector's total allowable catch.[229]

All covered participants, except forestry and fisheries, must surrender NZUs to cover their yearly emissions at a ratio of one NZU for every two tonnes of emissions (as opposed to the typically-imposed one allowance for every one tonne of emissions),[230] or a participant may pay $25 for every additional allowance needed to cover its emissions (which acts as a price ceiling for allowances).[231] The NZ ETS places excessive amounts of allowances, therefore, in circulation because – with the assistance factors for the emissions-intensive industrial sectors – the NZ ETS allocates sufficient allowances to cover a minimum of 60% of benchmark-meeting participants' emissions. Yet with the one-for-two regulation, it ultimately awards allowances capable of covering 120% of the same benchmark-meeting participants' emissions. Among the theories of hybrid allocation analyzed, the NZ ETS overcompensates participants more than any other scheme due to its lack of auctioning, its benchmarking to more industries than the most vulnerable, and its one-for-two submission regulation.

V. LINKING CARBON MARKETS

Linking domestic markets would have the positive effects of expanding compliance options for covered participants, fostering global cooperation to reduce emissions, and incentivizing the development of other domestic schemes.[232] Linking domestic markets would be a bottom-up approach to creating a global carbon market. The first step was the creation of domestic markets. The final step in achieving linking would be the adoption, individually or collectively, of policies that would permit the linking of two or more systems.[233]

The implementing legislation of many domestic schemes already anticipates the potential for linking with other systems.[234] The EU ETS allows linking with the CDM, permitting its participants to use ERUs and CERs earned through the Kyoto Protocol from 2013 onwards if these are earned from projects in the least developed countries (LDCs).[235] The EU ETS Directive allows the EU to make an agreement to link the EU ETS with another emissions trading system, provided that system is compatible with the EU ETS, mandates inclusion of participants (i.e. a non-voluntary system), and has an

228 *Id.* at § 72.
229 *Id.* at § 74.
230 *Id.* at §§ 61(1), 63, 63A.
231 *Id.* § 178A(2).
232 *See* NEWELL & PATERSON, *supra* note 42, at 105-06.
233 *See generally* Zhang & Nentjes, *supra* note 157.
234 *See e.g.* CAL. CODE REGS. tit. 17, §§ 95821, 95941, & 95942 (2013); *Québec Cap-and-Trade Regulation*, *supra* note 214, at § 37(3); N.Z. Climate Change Response Act, *supra* note 222, at §§ 21, 21AA, 23, 23A; *EU ETS Directive 2003, 2009 Consolidated Version*, *supra* note 73, at Arts. 11a(1)-(5), 25, & 25a.
235 *EU ETS Directive 2003, 2009 Consolidated Version*, *supra* note 73, at Arts. 11a(1)-(8).

"absolute emissions cap."[236] While the NZ ETS does not explicitly anticipate "linking" with other systems, it does provide for the acceptance of allowances from approved systems to meet compliance obligations in the NZ ETS and for the transfer of units to overseas registries.[237] It also accepts credits earned through the Kyoto Protocol for compliance, but will not accept credits earned from "industrial gas destruction projects" generating hydrofluorocarbon-23 and nitrogen oxide.[238] California's and Québec's systems have very similar legislation regarding links with other systems: they both allow participants to fulfill compliance obligations with allowances from another system,[239] provided that a link with the system has been approved or agreed to.[240] The following sections address how domestic markets might link with one another, and how – depending upon each system's choices, including the choice of allocation method – different problems could arise and require negotiation between systems.[241]

A. Methods of Linking

A system becomes linked with another one when it implements a regulation that permits participants to use another system's allowances to cover their emissions. System linkages can be either unilateral or bilateral.[242] In a unilateral linkage, one system accepts allowances from another system without like reciprocation.[243] Examples of unilateral linkages are the EU ETS's and the NZ ETS's approval for their participants to cover emissions with credits from the Kyoto Protocol's flexible mechanisms.[244] This is only a unilateral linkage, however, because EU ETS allowances and NZUs cannot be transferred into Kyoto credits.[245] If the allowances were transferable, the Kyoto mechanisms would present an international medium through which a participant could exchange one system's allowances into another's.[246] With the United States and Canada's absence

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236 *Id*. at Art. 25.

237 N.Z. Climate Change Response Act, *supra* note 222, at §§ 4(1), 18C(1), 23A.

238 *Climate Change Information Regulatory Updates*, New Zealand Ministry for the Environment (Dec. 17, 2012) http://www.climatechange.govt.nz/emissions-trading-scheme/building/regulatory-updates/ (last visited Sept. 19, 2014); N.Z. Climate Change Response Act, *supra* note 222, at §§ 21, 21AA, 23.

239 Cal. Code Regs. tit. 17, § 95821; *Québec Cap-and-Trade Regulation*, *supra* note 214, at § 37(3).

240 Cal. Code Regs. tit. 17, § 95941; *Québec Cap-and-Trade Regulation*, *supra* note 214, at § 3(8).

241 *See* Bossley & Kerr, *supra* note 7, at 173; *see generally* Edwin Woerdman, *Organizing emissions trading: the barrier of domestic permit allocation*, 28 Energy Pol'y 614-19 (2000), *available at* http://www.sciencedirect.com/science/article/pii/S0301421500000446

242 Michael Mehling & Erik Haites, *Mechanisms for Linking Emissions Trading Schemes*, 9 Climate Pol'y 169, 169 (2009).

243 *See id*.

244 *See* discussion *supra* notes 234-240 and accompanying text.

245 *See* Kyoto Protocol, *supra* note 145, Art. 12. Emissions reductions from projects receiving CDM allowances must be certified under the CDM and are only awarded to projects found to have emissions reductions "that are additional to any that would occur in the absence of the certified project activity." *Id*.

246 *See* Erik Haites & X. Wang, *Ensuring the Environmental Effectiveness of Linked Emissions Trading Schemes over Time*, 14 Mitig. Adapt. Strateg. Glob. Change 465, 472 (2009).

from the Kyoto Protocol, the North American systems in California, Québec, and the RGGI, are not able to offer participants the option of submitting Kyoto units in place of domestic allowances.[247] This is unfortunate because the 2004 Linking Directive of the EU ETS benefitted participants in the EU ETS and the CDM as a whole as it encouraged new investments in emissions efficient projects in developing parts of the world.[248] A link by the California and/or Québec systems with the CDM would have the potential to similarly invigorate the CDM while offering greater flexibility for participants to meet obligations.

Unlike a unilateral linkage, a bilateral linkage exists when both systems accept allowances from either system to cover a participant's emissions.[249] As of January 1, 2014, California and Québec are bilaterally linked.[250] Furthermore, in August of 2012, the EU and Australia announced a plan to bilaterally link the Australian emissions trading scheme (set to begin in 2015) with the EU ETS by no later than July 1, 2018.[251]

B. Allocation Issues

When a system chooses a particular method of allocation, that choice is likely to persist, and to be progressively more difficult to change.[252] As such, when systems develop independently from others and without regard to how their chosen methods will interact in a linked system, problems are inevitable.[253] The following considerations will be in the context of two linked schemes (bilaterally linked unless otherwise specified)

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247 *See supra* Sections IV.C and IV.D and accompanying notes.

248 NEWELL & PATERSON, *supra* note 42, at 104.

249 Mehling & Haites, *supra* note 242, at 169.

250 *California Cap and Trade: Summary*, Center for Climate and Energy Solutions, *available at* http://www.c2es.org/us-states-regions/key-legislation/california-cap-trade; *The Carbon Market*, Quebec Ministry for the Environment, http://www.mddep.gouv.qc.ca/changements/carbone/index-en.htm (last visited Jan. 29, 2013); *Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms to Allow for the Use of Compliance Instruments Issued by Linked Jurisdictions, Staff Report: Initial Statement of Reasons*, Air Resources Board, State of California (May 9, 2012), *available at* http://www.arb.ca.gov/regact/2012/capandtrade12/isormainfinal.pdf; *Emissions: Quebec's Olivier Discusses Expectations for the First Joint Auction with California,* Interview by Monica Trauzzi with Alain Olivier, Director, Quebec Government Office in Washington, D.C. (Jan. 9, 2013); Elizabeth M. Bailey, Severin Borenstein, James Bushnell, & Frank A. Wolak, *Issue Analysis: Linkage with Quebec in California's Greenhouse Gas Emissions Cap-and-Trade Market*, Emissions Market Assessment Committee for AB 32 Compliance Mechanisms (Sept. 20, 2012), *available at* http://www.arb.ca.gov/cc/capandtrade/emissionsmarketassessment/linkage.pdf.

251 *Australia and European Commission Agree on Pathway Towards Fully Linking Emissions Trading Systems*, Joint Media Release: European Commission & Australian Ministry for Climate Change and Energy Efficiency (Aug. 28, 2012), *available at* http://www.climatechange.gov.au/~/media/Files/minister/combet/2012/media/august/Combet-MediaRelease-20120828.pdf.

252 *See* Urs Springer & Dirk Forrister, *Linking Domestic Emission Trading Schemes to the EU ETS: Tetris Work Package 4*, ECOPLAN, NATSOURCE, xvi (2006).

253 *Id.*; Richard Baron & Stephen Bygrave, *Towards International Emissions Trading: Design Implications for Linkages: Information Paper*, OECD, INT'L ENERGY AGENCY (2002); *see* Woerdman, *supra* note 241, at 615; *see supra* Section III and accompanying notes.

and issues resulting from different allocation choices for similarly situated participants from different systems.

1. Emissions Leakage

Emissions leakage can result from a variety of allocation issues. Emissions leakage occurs when total emissions inside a system decrease, but such reductions result in an increase of total emissions elsewhere outside of the system.[254] Carbon dioxide and its equivalents have an impact on the global environment regardless of where they are emitted, so an increase in total global emissions from outside a system is detrimental to all, even those in the system. Attention must be paid, therefore, to reducing emissions leakage so that real emissions reduction impacts are seen from the implementation of these systems.

When a system imposes a cost upon a participant, as it does when implementing auctioning or forcing investments in new technology, this participant can either accept the decrease in its bottom line or it can pass the cost through to its consumers by raising the price of its product.[255] Its ability to pass this cost through to consumers depends on its elasticity of demand.[256] Essentially, a participant will incur great hardship from an emissions reduction system if consumers are able to switch to another, less expensive, producer.[257] This would create a higher demand for the cheaper-priced product, resulting in emissions leakage if it is produced outside of the regulated territory.[258]

Consider the emissions leakage that would result from two linked systems with different allocation methods. One system auctions the majority of allowances, like RGGI, but the other, like the NZ ETS, freely allocates its allowances to the competing sector. This would raise the cost to participants in the former system vis-à-vis those receiving allowances for free in the latter system. Demand for the products from the auctioning system would decrease (resulting in a decrease of emissions) and demand for products from the freely-allocating system would increase (resulting in an increase of emissions).[259] Bearing in mind that a system with auctioning produces greater emissions reductions than one with free allocation, emissions leakage would likely result from the link described above.[260]

2. Subsidy & Border Adjustment

Participants who have grandfathered or benchmarked allowances receive a subsidy from this free allocation, as they are awarded an asset of value without a cost. These participants benefit when systems are linked, unlike competitors who must pay at auction for the same allowance.[261] Ultimately, these allowances provide a distinct advantage

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254 *See* Erickson & Lazarus, et al., *supra* note 91, at 9.

255 *See* Fischer, *supra* note 57, at 45.

256 *See supra* Section III.C and accompanying notes.

257 Fischer, *supra* note 57, at 45.

258 *See id.*

259 *See* Damien Demailly & Philippe Quirion, *CO_2 Abatement, Competitiveness and Leakage in the European Cement Industry Under the EU ETS: Grandfathering vs. Output-Based Allocation*, 6 Climate Policy 93, 107 (2006).

260 *See id; see supra* Section III.A and accompanying notes.

261 *See* Woerdman, *supra* note 241, at 620.

to the participants receiving allowances for free because, in the event of a price war, these participants will be able to keep prices lower for longer than competitors.[262] In the same way, participants receiving allowances through grandfathering would have an advantage over competitors from another system that receive allowances through benchmarking (provided the benchmarked allowances did not cover their emissions needs). Consider if a system like RGGI were linked with a system like the EU ETS. RGGI auctions its allowances to power producers, but the EU ETS benchmarks allowances to vulnerable power producers. If these power producers became competitors (however, this is unlikely with these two particular systems because of the distance between them), those participants receiving allowances from a system like the EU ETS would have an advantage. This situation could arise with any participant in any sector.

In an unlinked system, border adjustments have been proposed as a way of negating the benefit derived from the imposition of these costs on domestic producers. A border adjustment would place a charge on a product coming from another system, aiming to compensate for the difference in costs imposed on the producers.[263] This has been a large concern relating to trade between countries with emissions trading systems and those without, as such measures could be argued to be discriminatory and an implicit trade barrier.[264] These concerns could also arise between two linked systems if, due to a difference in allocation, a system placed a charge on the product of another's participant. An international trade law dispute would likely arise from such a border adjustment (giving a benefit to one's own, or imposing a detriment on the other's participants).

3. SECTOR COVERAGE

Issues will arise within two linked systems when one system mandates a particular sector must participate and submit allowances to cover its emissions, where the other system does not include this sector, or where the sector is less regulated.[265] This would raise the costs imposed on the regulated sector compared to those costs incurred by the unregulated sector. This situation could arise from the failure of the regulator to ensure proper allocation and compliance, or from the failure of the designer to include the sector at all.

The situation where one system is less-rigorously monitored and regulated would endanger the market for allowances.[266] Under a less-rigorous – but linked – system, allowances would be over-allocated to sectors or participants. This would create a scenario much like that experienced by the EU ETS in its first phase, when the over-allocation of allowances caused the market price for allowances to plummet. When allowances from a linked system are allocated without the same precision, the influx of more allowances than necessary to cover emissions will result in a lower allowance price, and conse-

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262 *See id.*

263 *See* Kasturi Das, *Can Border Carbon Adjustments Be WTO-Legal?*, 8 Manchester J. Int'l Econ. L. 65, 68 (2011); James A. Lennox & Renger van Nieuwkoop, *Output-Based Allocations and Revenue Recycling: Implications for the New Zealand Emissions Trading Scheme*, 38 ENERGY POL'Y 7861, 7862 (2010).

264 *See* Das, *supra* note 263, at 67.

265 *See* BOSSLEY & KERR, *supra* note 7, at 173.

266 *See id.*

quently, will also benefit the less-rigorous system's participants because they will have more allowances to sell.

To illustrate a failure to include a sector completely, consider the following: a benchmarked participant that receives fewer allowances than necessary to account for its emissions will be compelled to invest in improvements or pay for the allowances needed to cover its obligations. But a competitor from the same sector in another system would not incur the compelled cost of investing in improvements or in paying for allowances to cover its obligations when the sector is unregulated or excluded from the scheme entirely. In a similar way, a participant that must purchase all allowances at auction, receiving none for free, is at a disadvantage compared to a benchmarked participant that receives a portion of its allowances for free. In the only situation this theme is not true, a participant that has grandfathered allowances would receive a benefit, and a competitive advantage, that an unregulated or excluded participant would not.

4. Caps & Submissions

Variations upon the number of allowances issued could create a competitive advantage of one system's participants over the others'. Consider two linked systems, which are identical except for each has a different policy regarding its emissions cap: this would have a similar effect as one being less rigorous than the other. It would directly affect the number of allowances put into circulation in the two-system market. Typically, systems that are more concerned about environmental effects choose a lower cap and issue fewer allowances, while those that are less concerned choose a higher cap and issue more allowances.[267] The system with the more lenient cap would, therefore, have more allowances in circulation. Unless all the allowances from both systems were auctioned, differing caps would allocate a greater number of grandfathered or benchmarked allowances to one system's participants, who will benefit from having more allowances to cover their emissions obligations or to sell on the market.[268]

Variations in submission obligations would have a comparable effect. Consider a system that employs a regulation like the NZ ETS's, permitting a participant to submit only one allowance for every *two* tonnes of emissions. This would, essentially, double the cap and the number of allowances available, making more available for sale in the market or for banking. A market linked with such a system would be faced with the problem, if all other regulations were identical, that its participants were receiving half the allowances of competitors from the other system. Such a scenario could give real force to an argument for exchange valuations for another system's allowances.

5. Valuation Differences

Depending upon a system's methods of allocation and rate of allowance submission, it is possible for one system to place a different value upon another system's allowances than upon its own. In the case where system A allocates twice as many allowances per tonne of emissions under the same conditions as system B, a single allowance from system A would cover half as many emissions as an allowance from system B. When linking the systems – exchanging A's allowances for B's and vice versa – an evaluation of the

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267 *See* Carsten Helm, *International Emissions Trading with Endogenous Allowance Choices*, 87 J. Public Econ. 2737, 2738 (2003).

268 *See* Flachsland, et al., *supra* note 156, at 1643.

allowance's relative worth should be appropriate, wherein one allowance from system B would be calculated as being worth two allowances from system A.

Such a notion could remove the necessity of ensuring schemes are compatible for linking, will not result in emissions leakage, and will not cause political confrontations over emissions caps and minor differences in how benchmarks are determined. Instead of negotiations over how to amend preexisting regulations in order for systems to match, policymakers would negotiate an "exchange rate" that would account for how many foreign allowances would be necessary to cover a tonne of emissions in a domestic market. This would be controlled by how many of the system's allowances are in circulation compared to the amount of emissions covered by the system, with the system with the fewest allowances available per emissions being the one with the higher value. This does not eradicate the political negotiations that would be undertaken to link two systems, but it would eliminate the need to change a system's policy choices.[269]

VI. CONCLUSION

This article has examined and analyzed the most prominent forms of allocation: auctioning, grandfathering, and benchmarking. It argues that, through the implementation of a hybrid scheme involving more than one of these methods of allocation, a system can be created that collectively addresses significant issues caused by each system individually. A hybrid scheme would be politically feasible because it would not be too harsh on participants; it would be efficient in achieving emissions reductions at the lowest cost to society; and it would justly compensate those participants that had already made investments in emissions-reducing technologies.

This article then examined the five mandatory cap-and-trade schemes operating in 2013, finding that all of these schemes are hybrids with varying portions of grandfathering, auctioning, and benchmarking. And it is these varying degrees that cause the linking of these domestic schemes into a bottom-up global market to be troublesome. Considering how different allocation methods shape domestic schemes, linking is problematic, but not impossible. For exchange between two systems, a bilateral link needs to be made that requires the agreement of both systems. Such an agreement is unlikely if one system, due to its characteristics and design, would benefit over the other. Designers and policymakers must then consider the problems presented herein that can arise from linking systems with differing allocation methods, namely emissions leakage, implied subsidies to one system's participants, different sectors included in the allocation, and varying emissions caps and submission policies, all of which create or stem from imbalances in competitiveness due to the linking of the systems. Border adjustments and negotiated valuation of one system's allowances vis-à-vis another's may be mechanisms for reducing these ill effects of linking. In conclusion, this article presented and analyzed cap-and-trade allocation methods, their characteristics, and issues that a designer or poli-

269 *See* Springer & Forrister, *supra* note 252, at xvi (describing how once systems have been implemented, it will be difficult to change the policy choices made in establishments); *see also* Woerdman, *supra* note 241, at 615 (emphasizing the belief that negotiations regarding allowance allocation is very difficult).

cymaker, faced with the task of negotiating the linking of two systems, must understand and address.

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Rain Catching: An Analysis of Rainwater Harvesting Law in Texas

By Calvin Trey Scott

I. Introduction

Water. A fairly simple word that contains only five letters. It is probably one of the first words a child learns after the obligatory, "No!" The chemical composition of water is also as simple: H_2O. It is comprised of two hydrogen atoms connected to an oxygen atom by covalent bonds. Yet, for all of its simplicity, water is also powerful. Water can destroy an entire town during a flood. It can burst pipes under a house. It can ruin a perfectly good afternoon. It can also cut through steel.[1] Unfortunately, water is also powerful because it has no substitute.

According to the World Health Organization, water scarcity affects four out of every ten people.[2] There are two separate types of water scarcity.[3] The first is physical scarcity. Physical scarcity exists when available water is insufficient to meet current demand.[4] About one-fifth of the world's population, or 1.2 billion people, live in areas facing

1 Science.HowStuffWorks.com, *How Can Water Cut Through Steel?*, http://science.howstuffworks.com/environmental/energy/question553.htm (last visited Jan. 23, 2014).

2 World Health Organization, *The International Decade for Action: Water for Life 2005-2015*, http://www.who.int/water_sanitation_health/decade2005_2015/en/ (last visited Aug. 31, 2014).

3 *See* Gary Gardner, *Water Scarcity Looms*, Vital Signs 2010, at 42, *available at* http://www.katieturner.org/images/Water_Scarcity_Looms.pdf.

4 *Id.*

physical water scarcity.[5] In the United States, physical water scarcity exists in many areas. From a decline in the water levels in aquifers, to the Rio Grande failing to reach the sea year round, physical water scarcity exists despite what would seem to be an abundance of water.[6]

The second type of water scarcity, economic scarcity, exists "when water is available but is inaccessible due to a lack of investment in water provisions or poor management and regulation of water resources."[7] One quarter of the population lives in areas facing economic water scarcity.[8] In fact, economic water scarcity is the most prevalent form of water scarcity in sub-Saharan Africa.[9]

However, water scarcity is not only an issue for developing countries with poor infrastructure. On January 17, 2014, Governor Jerry Brown of California declared a state of emergency to exist in California due to a water shortage.[10] In 2013, "water shortages shut down thermal power plants in India, decreased energy production in power plants in the United States and threatened hydropower generation in many countries, including Sri Lanka, China and Brazil."[11] Moreover, the International Energy Agency (IEA) predicts that prolonged water scarcity can threaten and possibly even hinder energy development as demand increases for both resources.[12] The IEA projects that energy consumption will increase by 35% by 2035, which will correspondingly increase global water consumption by 85%.[13] Also, Reuters reported that China's wetlands had shrunk by 9% since 2003, causing increased water scarcity in an area that holds over one-fifth of the world's population but only 6% of the world's freshwater resources.[14] In a report entitled "Global Water Scarcity," the U.S. State Department projects global water demand will increase from about 1,100 trillion gallons annually to 1,800 trillion gallons by the year 2030, an increase of over 60%.[15] This projected demand for water is 40% above current sustainable water supplies.[16]

To reduce water scarcity, government leaders and businesses are looking for innovative water supply options. *Xinua* news agency reported that China would soon begin

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5 World Health Organization, *supra* note 2.

6 *See* Gardner, *supra* note 3, at 42.

7 *Id.*

8 *See id.*

9 *Id.*

10 Press Release, Office of Governor Edmund G. Brown, Jr., Governor Brown Declares Drought State of Emergency (Jan. 17, 214), *available at* http://gov.ca.gov/news.php?id=18368.

11 *Water Shortages Slow Energy Production Worldwide*, THE WORLD BANK (Jan. 20, 2014), http://www.worldbank.org/en/news/press-release/2014/01/20/water-shortages-energy-production-worldwide.

12 *Id.*

13 *Id.*

14 Stian Reklev, Kathy Chen, David Stanway & Clarence Fernandez, *China's Water Squeeze Worsens as Wetlands Shrink 9 Pct*, REUTERS (Jan. 13, 2014), *available at* http://www.reuters.com/article/2014/01/13/us-china-water-idUSBREA0C08220140113.

15 *See* U.S. INTELLIGENCE CMTY., ICA 2012-08, Global Water Security, at 1 (Feb. 2, 2012), *available at* https://s3.amazonaws.com/s3.documentcloud.org/documents/327371/report-warns-that-water-shortages-could-threaten.pdf.

16 *Id.*

producing freshwater through the desalination of sea ice.[17] The San Antonio Water System (SAWS) in San Antonio, Texas, will likewise be producing freshwater by desalinating brackish groundwater.[18] The project, with an estimated completion date of 2026 for the three desalination facilities, will eventually produce around forty-two million gallons of desalinated water a day.[19] Desalination, however, can be very costly. In 2012, the Texas Water Development Board issued a report on the potential costs of brackish groundwater and seawater desalination.[20] According to the report, the cost of desalinating brackish groundwater ranged from $357 per acre-foot to $782 per acre-foot.[21] The cost of desalinating seawater ranges from $1,168 per acre-foot to $1,881 per acre-foot.[22] SAWS estimates that the cost of brackish water desalination from the plant mentioned above will cost $1,003 per acre-foot.[23]

Due to dwindling water supplies, there has also been a rise in water conservation. However, the price one pays for water rarely reflects the supply.[24] At its source, water is essentially free.[25] One simply pays for the infrastructure used to transport the water.[26] As a percentage of household income, Americans pay one-half of one percent for water, which is the lowest amount among developed nations.[27] By comparison, the average American household spends $707 per year on carbonated beverages and only $523 per year on water.[28] Because of the inexpensive nature of water, there is little incentive to conserve water. Therefore, water scarcity is "the predictable consequence of inexhaustible demand chasing an underpriced resource."[29] To put this in perspective, as one com-

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17 Sara Jerome, *Faced With Water Scarcity, China Looks to Sea Ice Desalination,* Water Online, Jan. 21, 2014, *available at* http://www.wateronline.com/doc/faced-with-water-scarcity-china-looks-to-sea-ice-desalination-0001.

18 San Antonio Water System, Brackish Groundwater Desalination, http://www.saws.org/your_water/waterresources/projects/desal.cfm (last visited Jan. 23, 2014) [hereinafter *SAWS: Brackish Groundwater Desalination*].

19 *Id.*

20 Jorge Arroyo & Saqib Shirazi, Innovative Water Tech., Tex. Water Dev. Bd., 12-06, Cost of Water Desalination in Texas (Sept. 2012), *available at* http://www.twdb.state.tx.us/innovativewater/desal/doc/Cost_of_Desalination_in_Texas.pdf.

21 *Id.* at 5. The costs listed include the cost of building a plant and 5.5% interest over the course of 20 years. An acre-foot of water is equivalent to 325,851 gallons. *See, e.g., SAWS: Brackish Groundwater Desalination*, *supra* note 18.

22 Arroyo & Shirazi, *supra* note 20.

23 *See SAWS: Brackish Groundwater Desalination, supra* note 18.

24 John Leshy, *Notes on a Progressive National Water Policy*, 3 Harv. L. & Pol'y Rev. 133, 137 (2009).

25 *Id.*

26 *Id.*

27 Michelle Kaufmann & Kelly Melia-Teevan, *Turning the Tides of Crisis: Prioritizing Water Conservation Before It's Too Late*, at 6 (2009), http://blog.michellekaufmann.com/wp-content/uploads/2009/03/water_crisis.pdf.

28 *Id.* at 6-7.

29 Kevin Watkins, et. al., United Nations Dev. Program, Human Development Report 2006, Beyond scarcity: Power, poverty and the global water crisis, 133 (2006), *available at* http://hdr.undp.org/sites/default/files/reports/267/hdr06-complete.pdf.

mentator said, "If someone were selling Porsches for three thousand dollars apiece, there would be a shortage of those too."[30]

This paper discusses another water supply option that may help address water scarcity concerns that, though it has been a around for centuries, has recently gained more attention as a potentially important local water supply alternative in Texas and other states: rainwater harvesting. Section II of this paper provides a basic overview of rainwater harvesting. A few examples of where rainwater harvesting has enjoyed success in Texas are highlighted in Section III. Then, Sections IV and V provide a general overview of the federal and state legal framework under which rainwater harvesting can be implemented, followed by a discussion of some local incentives in Texas available to promote rainwater harvesting, outlined in Section VI. To contrast with Texas, Section VII provides a peak at how Colorado has handled rainwater harvesting issues. Finally, Section VIII includes recommendations to consider that may enhance the role of rainwater harvesting as a more viable water supply option in Texas.

II. RAINWATER HARVESTING PRIMER

A. HISTORY OF RAINWATER HARVESTING

Texas defines rainwater harvesting as "the capture and storage of rainwater for subsequent use."[31] While Texas only recently began to recognize and codify rainwater harvesting alternatives, rainwater harvesting is not a new phenomenon. "Throughout history, humans have used, stored, and distributed rainwater for agricultural and domestic purposes."[32] In the Indus Valley Civilization, rainwater harvesting was the norm in an area lacking lakes and perennial rivers.[33] The ancient American Southwest and Central America featured inhabitants coping with the dry conditions by developing an assortment of techniques for harvesting rain, including terracing hillsides to slow water runoff, gridding gardens with short dirt walls, burying clay pots with holes to serve as a quasi-irrigation system, and constructing dams and canals to connect to community cisterns.[34] During the 1800's and early 1900's in America, it was not surprising for homes to have both a water well and a cistern.[35] People used the water well for livestock and washing clothes, while water from the cistern was used for cooking and drinking.[36] Currently, however, rainwater harvesting is mainly used in the United States to provide water for

30 *Id.*
31 34 TEX. ADMIN. CODE § 3.318(a)(5) (West 2014).
32 Katherine Cummings, Comment, *Adapting to Water Scarcity: A Comparative Analysis of Water Harvesting Regulations in the Four Corner States*, 27 J. ENVTL. L. & LITIG. 539, 540 (2012).
33 Troy Payne & Janet Neuman, *Remembering Rain,* 37 ENVTL. L. 105, 114 (2007).
34 *Id.* at 121.
35 Robert Bryce, *The Brethren of Cisterns: What's Old is New Again*, AUSTIN CHRONICLE, June 14, 1996, *available at* http://www.austinchronicle.com/news/1996-06-14/532026/.
36 *Id.*

non-potable activities.[37] Today, one can find rainwater harvesting systems at homes, businesses, and non-profit centers.[38]

B. Basic Requirements of Rainwater Harvesting

Rainwater harvesting, whether in ancient or modern times, requires two elements: a catchment and a place to store the rainwater.[39] A catchment is a broad surface used to catch rain.[40] It can be as simple as a rooftop of an existing building or furrows in the ground.[41] The storage area can be cisterns, tanks, ponds, or in the soil.[42] Such systems may be broadly categorized as roof-based and land-based.[43] Roof-based rainwater harvesting exists if the catchment surface is a roof, which is typically cleaner than land-based harvesting, which catches water from land surfaces.[44]

The most obvious choice for a catchment surface is the rooftop of a home or building as it does not require additional construction.[45] If needed, additional catchment surfaces can be built. The most common form of additional catchment surface is an open-sided barn.[46]

The heart and soul of a rainwater harvesting system is the storage tank.[47] A storage tank's primary function is to store the rainwater collected from a rainwater harvesting system. Yet, a single ideal storage tank design does not exist; the size and shape of the storage tank used depends on the use, cost, and availability of supplies and materials.[48] The amount of rainfall, projected dry periods, type of catchment surface, aesthetics, and personal preference also determine the storage tank used in a rainwater storage system.[49] Furthermore, storage tanks can be above or below ground, inside, outside, or partially

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37 City of San Diego, Rainwater Harvesting Guide, at 2, http://.sandiego.gov/water/pdf/conservation/rainwaterguide.pdf [hereinafter Rainwater Harvesting Guide].

38 *See, e.g.*, U.S. Green Bldg. Council, N. Tex. Chapter, All Projects, http://www.northtexasgreencouncil.org/index.php/projects (last visited Jan. 27, 2014).

39 Payne & Neuman, *supra* note 33, at 107-08.

40 *Id.* at 107.

41 *Id.* at 108.

42 *Id.*

43 Tex. Rainwater Harvesting Evaluation Comm., Rainwater Harvesting Potential and Guidelines for Texas, Report to the 80th Legislature, 5 (Nov. 2006), *available at* http://www.twdb.state.tx.us/innovativewater/rainwater/doc/RainwaterCommitteeFinalReport.pdf.

44 *Id.*

45 Tex. Water Dev. Bd., The Texas Manual on Rainwater Harvesting, at 5 (3rd ed. 2005), *available at* https://www.twdb.texas.gov/publications/brochures/conservation/doc/RainwaterHarvestingManual_3rdedition.pdf [hereinafter Manual on Rainwater Harvesting].

46 *Id.*

47 Caribbean Envtl. Health Inst. & U.N. Env't Program, Rainwater: Catch it While You Can. A Handbook on Rainwater Harvesting in the Caribbean, 27 (2009), *available at* http://www.unep.org/ecosystemmanagement/LinkClick.aspx?fileticket=BSHYvGt8Gkk%3D&tabid=435&language=en-US.

48 *Id.*

49 Manual on Rainwater Harvesting, *supra* note 45, at 10.

above and below ground.[50] If the storage tank is to store potable water, the storage tank must never have stored any form of toxic chemicals and must be accessible for cleaning.[51] Tanks should be placed as close to supply and demand points as possible to reduce the distance water must travel.[52]

The most commonly available storage tank used in even the poorest communities throughout the world is the 55-gallon oil drum.[53] However, experts do not recommend a 55-gallon oil drum because of the potential contamination from the barrel's previous contents.[54] Instead, recommended storage tank materials include ferrocement, fiberglass, masonry, plastic, concrete, metal, and wood.[55] One must put careful thought and planning into the design and size of a tank, since the storage tank is normally the most expensive part of a rainwater harvesting system.[56]

Rainwater harvesting systems use gutters and downspouts to transport water from the catchment surface to the tank. Common materials for gutters and downspouts are half-round PVC, vinyl, pipe, seamless aluminum, and galvanized steel.[57] For gutters to be effective, they should slope toward the direction of the downspout.[58] The gradient should be equal to or more than one eighth of an inch per foot.[59] The recommended width of the gutter is proportionate to the size of the catchment section area.[60]

Notably, most untreated rainwater meets the World Health Organization's minimum standards for water quality.[61] In many cases, it far exceeds the quality of groundwater.[62] Nevertheless, a filtration system is also recommended to ensure safe drinking water.[63]

C. The Pros and Cons of Rainwater Harvesting

Rainwater harvesting is among the simplest and lowest-cost means of water supply, employing technologies that are generally easy to install and maintain.[64] In addition to its low cost, there are several other benefits to rainwater harvesting. Rainwater harvesting provides water where the water is used.[65] The cost of operating a rainwater harvesting system is reasonably low.[66] The water caught by the system is practically free.[67]

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50 CARIBBEAN ENVTL. HEALTH INST., *supra* note 47, at 17.
51 MANUAL ON RAINWATER HARVESTING, *supra* note 45, at 11.
52 *Id.*
53 CARIBBEAN ENVTL. HEALTH INST., *supra* note 47, at 29.
54 *Id.*
55 *Id.* at 28-31.
56 MANUAL ON RAINWATER HARVESTING, *supra* note 45, at 10.
57 *Id.* at 6.
58 *Id.*
59 CARIBBEAN ENVTL. HEALTH INST., *supra* note 47, at 22.
60 *Id.*
61 Payne & Neuman, *supra* note 33, at 110.
62 *Id.*
63 *See id.*
64 CARIBBEAN ENVTL. HEALTH INST., *supra* note 47, at 13.
65 *Id.* at 15.
66 *Id.*
67 TEX. WATER DEV. BD., Frequently Asked Questions, http://www.twdb.state.tx.us/innovativewater/rainwater/faq.asp#title-20http://www.twdb.state.tx.us/innovativewater/rainwater/faq.asp#indexes (last visited Jan. 24, 2014) [hereinafter TWDB FAQs].

Storm runoff is drastically reduced with rainwater harvesting, and it provides the opportunity to return less contaminated rainwater back into the environment.[68] Designs of rainwater harvesting systems can be adapted depending on need; designs can range from a simple rain barrel at the bottom of a downspout to a complex system of cisterns.[69] By harvesting rainwater, individuals can reduce utility bills and help reduce the strain on utility providers during peak summer months.[70] Harvesting rainwater can also enhance the awareness of the value of water to promote conservation.[71]

Yet, there are also disadvantages. The primary disadvantage of a rainwater harvesting is that its success depends upon the frequency and amount of rain that falls on the catchment area.[72] Another disadvantage is that the initial capital cost of a rainwater harvesting system is more expensive than obtaining water from a municipal water source.[73] Moreover, a rainwater harvesting system, if effective, can limit the revenues received by public utility supplies.[74] Rainwater harvesting systems require maintenance and care after installation that may not be suitable for all users.[75] However, some believe that these disadvantages can be minimized by adding a few simple water safety measures, some of which are discussed above.[76]

III. Rainwater Harvesting in the Dallas-Fort Worth Metroplex

Because of incentives, tax breaks, demand, or simply a desire to conserve water, many homes and buildings now use rainwater harvesting systems in the Dallas-Fort Worth Metroplex. Located a couple of miles from downtown Dallas, for instance, the Trinity River Audubon Society Center uses several green building ideas, including, most notably, rainwater harvesting.[77] Harvested rainwater from the roof is stored in underground tanks.[78] The water that is harvested is used to water plants near the center of the building.[79]

Corgan Associates, Inc. recently built a new headquarters in Dallas, Texas, that uses rainwater harvesting to water its landscape.[80] With the inclusion of water-conscious

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68 Rainwater Harvesting Guide, *supra* note 37, at 3.

69 Or. Dep't of Consumer & Bus. Serv., Bldg. Codes Div., Oregon Smart Guide: Rainwater Harvesting, Oregon Department of Consumer & Business Services 1, *available at* http://www.bcd.oregon.gov/pdf/3660.pdf.

70 TWDB FAQs, *supra* note 67.

71 *See* Rainwater Harvesting Guide, *supra* note 37, at 2.

72 *See id.* at 16.

73 TWDB FAQs, *supra* note 67.

74 Caribbean Envtl. Health Inst., *supra* note 47, at 16.

75 TWDB FAQs, *supra* note 67.

76 Caribbean Envtl. Health Inst., *supra* note 47, at 16.

77 U.S. Green Bldg. Council, N. Tex. Chapter, Case Studies, Trinity River Audubon Society, http://www.northtexasgreencouncil.org/index.php/projects (last visited Jan. 27, 2014).

78 *Id.*

79 *Id.*

80 *Corgan Headquarters – First Privately Developed LEED® Office Building in Dallas for New Construction*, Business Wire, Jun. 02, 2008, *available at* http://www.businesswire.com/news/home/20080602005209/en/Corgan-Headquarters—-Privately-Developed-LEED-Office.

landscaping, the new headquarters reduced the water required for landscaping by fifty percent.[81]

Rainwater harvesting is not limited to corporate buildings; private residences can also use rainwater harvesting. Completed in May 2009, the Labron residence in Dallas received a Merit Award from EcoHome, a magazine published by the American Institute of Architects.[82] The Labron residence uses a rainwater harvesting system that includes two 2,500-gallon, above-ground water tanks.[83] The residents use the water for landscape irrigation and washing clothes.[84]

Public education buildings are also using rainwater harvesting. The Dallas-Fort Worth Metroplex is also home to the largest Net Zero middle school in the nation, meaning that the building produces just as much energy as it consumes, and it uses rainwater harvesting as part of its overall efficient design.[85] Lady Bird Johnson Middle School in Irving, Texas first opened its doors to students in August 2011.[86] Only a small fraction of the almost $30 million budget was spent on the equipment to harvest rainwater:[87] $30,000, or .001 percent, of the production budget was spent on a 5,000-storage tank to collect rainwater and greywater.[88] This tank collects rainwater from the roof of the building and channels it through pipes built inside the walls of the school.[89] The school uses the water collected in the storage tank to water the landscaping around the building.[90]

IV. FEDERAL LAW

"When water is plentiful, there is little need for water law."[91] As stated above, water eventually will become scarce and water law will be at the forefront of modern law. So far, states have been leaders in the advancement and creation of rainwater harvesting law; although, the EPA has released guides on water conservation practices that include rainwater harvesting.[92] In 2009, the U.S. House of Representatives passed H.R. 3598,

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81 *Id.*

82 Jennifer Goodman, *Merit Award: Labron Residence*, ECOHOME (Aug. 10, 2010), http://www.ecohomemagazine.com/leed/labron.aspx.

83 *Id.*

84 *Id.*

85 Irving Indep. Sch. Dist., *Lady Bird Johnson Middle School, About Our School*, http://irvingisd.net/education/components/scrapbook/default.php?sectiondetailid=18598 (last visited July 23, 2014).

86 *Id.*

87 Scott Layne, *Lady Bird Johnson Middle School Promotional Material*, on file with author.

88 *Id.*

89 *Id.*

90 *Id.*

91 Leshy, *supra* note 24, at 137.

92 *See* Harvest H_2O, *Regulations and Statutes*, http://www.harvesth2o.com/statues_regulations.shtml#ut (last visited July 23, 2014); CHRISTOPHER KLOSS, LOW IMPACT DEV. CENT., EPA, EPA-833-F-08-010, MANAGING WET WEATHER WITH GREEN INFRASTRUCTURE MUNICIPAL HANDBOOK: RAINWATER HARVESTING POLICIES (2008), *available at* http://water.epa.gov/infrastructure/greeninfrastructure/upload/gi_munichandbook_harvesting.pdf.

which called for the Department of Energy to find ways to increase water efficiency, in a House subcommittee.[93] However, it died before being enacted by the Senate.[94]

V. Texas Law

A. Texas Water Rights Law

Two separate categories of water exist under Texas law: surface water and groundwater.[95] Where rainfall ultimately ends up – on the surface or underground - will determine how or whether it is regulated in Texas. Rainwater that seeps into the ground and becomes groundwater is regulated by local groundwater districts (where they exist),[96] and elsewhere by the common law principles.[97] In many cases, however, rainwater and its regulation will be subject to the laws governing surface water. Under Texas Water Code section 11.021, the water "of every river, watershed, stream, canyon, ravine, depression, and watershed in the state is the property of the state."[98] Thus, once rainfall enters a watercourse, it becomes state water and there is little room for private ownership of surface water.[99] The only way to assert a right to surface water once it has entered a watercourse is to have a permit, unless an exception to the state ownership rule exists or an exemption from the permit requirements exists.[100] Before rainfall enters a watercourse, however, it may be captured and held by the landowner on whose land it falls. In *Turner v. Big Lake Oil Co.*, the Supreme Court of Texas held that a landowner has a vested property right to any rain that falls on his land, so long as it does not enter a watercourse.[101] The law at issue in *Turner* was an earlier iteration of the concept of state owned water, but the language of the statute is almost the same.[102] The Court held:

> No citation of authority is necessary to demonstrate that the right of a land owner to the rain water which falls on his land is a property right which vested in him when the grant was made. Being a property right, the Legislature is without power to take it from him or to declare it public property and subject by appropriation or otherwise to the use of another.[103]

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93 H.R. 3598, 111th Cong. (1st Sess. 2009) (as passed by the House, Dec. 2, 2009).
94 *Id.*
95 Tex. Water Code Ann. § 26.001(5) (West 2001).
96 *See generally* Tex. Water Code ch. 36.
97 *See generally* Edwards Aquifer Auth. v. Day & McDaniel, 369 S.W.3d 814 (Tex. 2012).
98 Tex. Water Code § 11.021.
99 Douglas G. Caroom & Susan M. Maxwell, *The Intersection of Water Rights, Water Quality Regulation, and Runoff Controls*, Texas Environmental Superconference, 3 (August 4-5, 2005) *available at* http://www.bickerstaff.com/files/THE_INTERSECTION_OF_WATER_RIGHTS___00609571_.PDF.
100 *Id.* at 3-4.
101 Turner v. Big Lake Oil Co., 96 S.W.2d 221, 228 (Tex. 1936).
102 *Id.* at 228 (discussing Tex. Rev. Civ. Stat. Ann. Art. 7467 (West 1966)).
103 *Id.*

Turner addressed diffuse surface water.[104] Case law defines diffuse surface water as "water which is diffused over the ground from falling rains or melting snows, and continues to be such until it reaches some bed or channel in which water is accustomed to flow."[105] Caselaw and state regulatiosn help further define when rainwater becomes state water by defining a 'watercourse' as as "[a] definite channel of a stream in which water flows within a defined bed and banks, originating from a definite source or sources. (The water may flow continuously or intermittently, and if the latter with some degree of regularity, depending on the characteristics of the sources.)"[106] The three characteristics of watercourses include: (1) a defined bed and banks; (2) a current of water; and (3) a permanent source of supply.[107] However, in determining if a watercourse meets these factors, courts have been liberal in their interpretation.[108]

If diffuse water, which includes rainwater, reaches a watercourse, the only way to continue to assert a claim to the water is by obtaining a bed and banks permit to transport the collected rainwater or by claim of an exemption.[109] In Texas, the Texas Commission on Environmental Quality (TCEQ) regulates the issuance of permits to divert and use state water, and "no person may appropriate any state water or begin construction of any work designed for the storage, taking, or diversion of water without first obtaining a permit from the commission to make the appropriation."[110] Individuals may construct a dam or reservoir on one's own property for domestic or livestock use so long as it does not store greater than 200 acre-feet per year on average, which is otherwise known as the domestic use exemption.[111] As such, this exemption only applies to individuals and not commercial operations.[112] Often, this exemption will allow landowners to capture rainwater that falls on their property without the need for a state permit.

If rainwater that lands on one's property drains into a watercourse before it is captured, the landowner can only lay claim to that water if he has a riparian right to divert water from the watercourse by virtue of his land ownership[113] or if he obtains a bed and banks permit to transport and subsequently divert and use the captured rainwater.[114]

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104 *Id.*

105 Shana L. Horton, *Surface Water 101*, Water Rights 101 (State Bar of Texas, April 2010) (quoting City of Princeton v. Abbott, 792 S.W.2d 161, 163 (Tex. App.–Dallas 1990, writ denied) (quoting Stoner v. City of Dallas, 392 S.W.2d 910, 912 (Tex.Civ.App.– Dallas 1965, writ ref'd., n.r.e.)); *see also* 30 TEX. ADMIN. CODE § 297.1(50) (West 2013) (defining 'state water' to exclude "diffuse surface rainfall runoff, groundwater seepage, or springwater before it reaches a watercourse.").

106 *30* TEX. ADMIN. CODE § 297.1(59).

107 Horton, *supra* note 105 (citing Domel v. City of Georgetown, 6 S.W.3d 349, 353 (Tex. App.—Austin 1999, pet. denied).

108 *Id.*

109 Caroom & Maxwell, *supra* note 99, at 5.

110 TEX. WATER CODE § 11.121 (2012).

111 *Id.* § 11.142(a).

112 *Id.*

113 *Id.* § 11.303(l); 30 TEX. ADMIN. CODE § 297.21(a).

114 TEX. WATER CODE § 11.142(c).

B. Texas Laws Supporting Rainwater Harvesting

If the landowner is able to capture and retain the rainwater, Texas has adopted a number of statutes to support rainwater harvesting as a local water supply option.

Texas Water Code section 1.003 lists the public policy of Texas in all matters concerning water.[115] Specifically, section 1.003(8) says that it is the public policy of the state to promote the use of rainwater harvesting for potable and non-potable purposes in both private and public locations.[116] But this is not the only place within Texas statutes that promote rainwater harvesting. Under the Local Government Code, section 580.004 states that "[e]ach municipality and county is encouraged to promote rainwater harvesting at residential, commercial, and industrial facilities through incentives such as the provision at a discount of rain barrels or rebates for water storage facilities."[117] The statute goes on to likewise encourage school districts to implement rainwater harvesting systems.[118] The statute also mandates that a municipality or county may not deny a building permit if a building owner chooses to implement a rainwater harvesting system; however, the municipality or county may require that the system comply with the minimum state standards established for a rainwater harvesting system.[119] Furthermore, rainwater harvesting systems, or other on-site water reclamation technology, must be incorporated on each new state building with a roof area greater than 10,000 square feet or on any other building that it may be feasible to do so.[120] Rainwater harvesting systems must be implemented in the design of each new state building with a roof area at least 50,000 square feet and located in an area of the state that receives at least 20 inches of rain annually.[121] The building must use the harvested rainwater for indoor and outdoor potable and nonpotable uses.[122]

Texas health and safety standards for treatment and collection of harvested rainwater intended for drinking, cooking, and bathing are located in the Texas Health and Safety Code.[123] Section 341.042 requires cross-connection safeguards if a structure uses a rainwater harvesting system and also uses a public water supply as an auxiliary water supply.[124] Further, if a privately-owned rainwater collection system has a capacity of over 500 gallons and connects to a public water supply as an auxiliary water source, it must have either a backflow prevention or an air gap connected to the storage facility that physically separates the rainwater from the auxiliary water supply.[125] If the user of a rainwater harvesting system plans to use a public water supply as an auxiliary source of water, the user must give written notice either to the municipality in which the rainwa-

115 *Id.* § 1.003.
116 *Id.*
117 Tex. Loc. Gov't Code Ann. § 580.004 (West 2013).
118 *Id.*
119 *Id.*
120 *Id.* § 447.004(c-1).
121 *Id.*
122 *Id.*
123 Tex. Health & Safety Code Ann. § 341.042 (West 2013).
124 *Id.*
125 *Id.*

ter harvesting system is located or to the owner or operator of the public water system.[126] In addition, a municipality or the owner or operator of a public water supply may not be held liable for the ill effects of using rainwater that has been harvested.[127]

When looking for funding for rainwater harvesting systems, one can turn to the Texas Finance Code. Financial institutions in the State of Texas "may consider making loans to developments that will use rainwater harvesting as the sole source of water supply."[128] Moreover, rainwater harvesting equipment and supplies are exempt from sales, excise, or use tax.[129] However, this tax relief is not retroactive: the statute does not affect taxes assessed prior to June 15, 2007.[130]

Section 202.007 of the Texas Property Code prevents property owners associations from restricting a property owner from using rainwater harvesting systems.[131] However, the property owner's association can require that it be the same color scheme as the home to which the system attaches and that it not contain writing or symbols not typical for such a system.[132] The property association can also regulate the size, shape, and material used in a rainwater harvesting system if it is visible from the street, adjacent lot, or other common area, so long as the restrictions do not prohibit the economic installation of the device.[133] Section 5.008 of the Property Code provides that, when selling property, a seller is required to disclose the existence of a rainwater harvesting system on the property.[134]

VI. LOCAL INCENTIVES & REGULATIONS

In addition to the overall promotion of rainwater harvesting by Texas statutes, local governments are also passing ordinances and other measures to promote rainwater harvesting. In Hays County, for example, the County Commissioners Court considered creating a rainwater harvesting fund.[135] The fund would provide loans to individuals to purchase rainwater harvesting equipment.[136] Individuals would repay the loans, along with ad valorem tax, over a period not to exceed ten years.[137] Other individuals who

126 *Id.*
127 *Id.*
128 TEX. FIN. CODE ANN. § 59.012 (West 2011).
129 TEX. TAX CODE ANN. § 151.355 (West 2012).
130 *See id.*
131 TEX. PROP. CODE ANN. § 202.007 (West 2013).
132 *Id.*
133 *Id.*
134 *Id.* § 5.008.
135 *Hays County Rainwater Fund Proposed*, HILL COUNTRY ALLIANCE, http://www.hillcountryalliance.org/HCA/News012214 (last visited Jan. 27, 2014).
136 *Id.*
137 Brett Thorne, *Hays County Commissioners Considering Rainwater Initiative*, COMMUNITY IMPACT NEWS (Jan. 21, 2014), http://impactnews.com/austin-metro/san-marcos-buda-kyle/hays-county-commissioners-considering-rainwater-initiative/.

wish to purchase rainwater harvesting equipment will use the returned funds to purchase the equipment.[138]

The city of Austin offers its own rebate program for water customers that install rainwater harvesting systems.[139] Under the city of Austin's program, customers can receive a rebate of $.50 (non-pressurized) or $1.00 (pressurized) per gallon of water for installing a rainwater harvesting system.[140] The individual must renew the rebate each year, and the maximum lifetime rebate amount is $5,000, not to exceed 50% of the total cost of the rainwater harvesting system.[141]

In San Antonio, commercial water customers could potentially receive a rebate of up to 100% on new, water-saving processes or water-saving equipment.[142] San Antonio's water utility, SAWS, has indicated a willingness to adapt this program to any type of water-saving program, including rainwater harvesting.[143] To receive the rebate, commercial customers must submit an application and receive prior approval before beginning the project.[144]

San Antonio also requires the owners of certain non-potable water tanks to register the tank with the SAWS.[145] Non-potable water tanks must be registered with SAWS if: (1) the non-potable water tank is located at a commercial or residential property with potable water back-up, regardless of tank capacity; (2) the non-potable water tank is at a commercial location and has a combined storage capacity over 5,000 gallons; and (3) the non-potable water tank is at a residential location with a combined storage capacity over 1,000 gallons.[146] Presumably, this registration is to ensure the integrity of potable water supplies.

Earlier this year, the city of Plano offered discounted rain barrels to citizens if ordered online.[147] The city also offers rebates of $25 on water bills to residents that use rainwater harvesting systems.[148] In addition, the city hosts a rainwater harvesting class for interested citizens to learn about barrels, installation, and maintenance of a rainwater harvesting system.[149]

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138 *Id.*

139 Austin Water, *Rainwater Harvesting Rebates*, AUSTINTEXAS.GOV, http://www.austintexas.gov/department/rainwater-harvesting-rebates (last visited Jan. 24, 2014).

140 *Id.*

141 *Id.*

142 San Antonio Water System, Commercial Custom Rebate, http://www.saws.org/ conservation/commercial/custom.cfm (last visited Jan. 28, 2014).

143 *Id.*

144 *Id.*

145 San Antonio Water System, Non-Potable Water Tank http://www.saws.org/Conservation/Commercial/NonPotableTank/index.cfm (last visited Jan. 28, 2014).

146 *Id.*

147 City of Plano, Rain Barrel Sale, http://rainbarrelprogram.org/plano (last visited Feb. 18, 2014).

148 *Id.*

149 *Id.*

VII. COMPARATIVE LAW

While Texas seems to be progressively more supportive of rainwater harvesting, not all states feel the same way. According to the National Council of State Legislatures, as of September 1, 2013, only twelve states and the Virgin Islands have laws regulating rainwater harvesting.[150] These laws range from simple tax credits to requiring the inclusion of rainwater harvesting systems in new and repaired buildings.[151]

Some states actually limit rainwater harvesting. Colorado, for example, is very hostile to rainwater harvesting, and recent legislative changes only allow limited harvesting.[152] Doug Kemper, executive director of the Colorado Water Congress once said, "When it's in the sky it's fine. But as soon it hits the ground, or on the way to the ground, that's where it kind of changes a little."[153]

However, change did occur in 2009 when Colorado passed two laws: Colorado Revised Statutes sections 37-90-105 and 37-60-115.[154] Section 37-90-105 allowed residential property owners in rural areas that rely on certain types of wells to capture and use rainwater.[155] However, the law is very narrowly tailored. To harvest rainwater in the state of Colorado, a residential property owner must meet all of the requirements under the law.[156] The first requirement is that the property on which the collection takes place is residential property.[157] Next, the landowner must use a well, or be legally entitled to a well, for their water supply.[158] Third, the landowner must have a domestic use permit for the well from which the landowner obtains their water supply.[159] In addition, a water supply cannot be available to the landowner from a municipality or water district.[160] Furthermore, the rainwater collected may only come from the roof of a building that serves primarily as a residence.[161] Finally, the water may only be used for those uses that are specifically allowed by and identified on the well permit.[162] The second law, Colorado Revised Statutes section 37-60-115, authorized ten pilot projects that used rainwater harvesting in new real estate developments for non-potable uses.[163]

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150 National Conference of State Legislatures, *State Rainwater Harvesting Statutes, Programs and Legislation*, http://www.ncsl.org/research/environment-and-natural-resources/rainwater-harvesting.aspx (last visited Feb. 17, 2014).

151 *Id.*

152 Cummings, *supra* note 32, at 547.

153 Harvest H_2O, *supra* note 92.

154 COLO. REV. STAT. ANN. § 37-90-105 (West 2014); *id.* § 37-60-115.

155 *Id.* §§ 37-90-105.

156 COLO. DEP'T OF NATURAL RES., DIV. OF WATER RES., Rainwater Collection in Colorado, *available at* http://water.state.co.us/DWRIPub/Documents/DWR_RainwaterFlyer.pdf.

157 *Id.*

158 *Id.*

159 *Id.*

160 *Id.*

161 *Id.*

162 *Id.*

163 COLO. REV. STAT. ANN. § 37-60-115.

VIII. Recommendation

Rainwater harvesting in Texas has come a long way. While it was once unaddressed, it is now the public policy of the State of Texas to promote rainwater harvesting. However, rainwater harvesting is notably absent from the State Water Plan. For rainwater harvesting to become mainstream and truly become more than just a novelty, three things must take place.[164]

First, the State of Texas should encourage local water supply enhancements, like rainwater harvesting, in its State Water Plan. If rainwater harvesting projects were sponsored by local political subdivisions in the State Water Plan, they may have greater access to the funds made available by Proposition 6 or other public funding mechanisms administered by the Texas Water Development Board. Rainwater harvesting projects could be anything from a rainwater harvesting farm in East Texas to installing rainwater harvesting systems in school buildings throughout the state. Rainwater harvesting projects could also decrease the need for new reservoirs, which would in turn reduce the amount of water lost to evaporation. While it is true that the volume of water needed to effectively contribute to combating water scarcity concerns may be lacking during periods of drought, there are times when water would be available, and every little bit conserved helps.

Second, rainwater harvesting education must occur. The city of Plano has a unique idea in holding rainwater harvesting classes and offering discounted rain barrels. By holding similar classes, municipalities and organizations can increase awareness of rainwater harvesting and improve water conservation measures. However, the target audience should increase from merely homeowners to local business owners as well.

Finally, rainwater harvesting must become more cost efficient. As described above, the State of Texas and several municipalities have incentive programs that target the cost efficiency of rainwater harvesting systems. In addition, rainwater harvesting systems are reasonably priced. However, water from a municipal water service is still the cheaper option. The cost of a rainwater harvesting system must decrease to such an extent that it anyone can purchase and maintain such a system cheaply and efficiently. Until then, it will remain a novelty.

IX. Conclusion

Water, like religion and ideology, has the power to move millions of people. Since the very birth of human civilization, people have moved to settle close to it. People move when there is too little of it. People move when there is too much of it. People journey down it. People write, sing and dance about it. People fight over it. And all people, everywhere and every day, need it.[165]

In an 2000 essay for *Civilization* magazine, former President of the Soviet Union, Mikhail Gorbachev, summarized the power that water holds over people. Water has the

164 The list in the paragraphs below is not intended to be an exclusive list. It is simply what the author believes will work best.

165 Mikhail Gorbachev, *The Global Water Crisis, An Essay*, Civilization Magazine (2000), *available at* http://www.runningdry.org/essay.html.

power to move millions of people around the globe simply because it is an everyday necessity and no substitute exists. We can never limit the power water holds over us, but with positive measures like those taken in states like Texas to encourage the conservation of water, we can learn to respect that power.

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The Continuing Necessity of Common Law Torts for Environmental Harms: Why the Clean Air Act Should Not Preempt State Law Claims Against Stationary Sources

By Scott Armstrong

I. Introduction

In Texas City, Texas, roughly 48,000 plaintiffs claim that British Petroleum Products North America (BP) negligently released hundreds of thousands of pounds of toxic pol-

lutants into the air from its Texas City refinery.[1] The plaintiffs claim that BP released toxic chemicals, including benzene, over a forty-day period, and as a result they incurred personal injury and property damages.[2] The health effects of exposure to benzene include "drowsiness, dizziness, headaches . . . eye, skin, and respiratory tract irritation," and animal studies have suggested potential adverse effects on the fetuses of exposed women.[3] In addition to their actual damages, the plaintiffs are seeking billions of dollars in punitive damages, which they claim are necessary to deter BP and others from engaging in repeated harmful emission releases.[4] The plaintiffs argue that BP's drive for corporate profit led to a negligent decision to continue operating equipment that BP knew was unable to destroy toxic pollutants before venting them into the air.[5] The plaintiffs seek money damages for human suffering, personal injury, and property damages they believe were caused by BP's failure to maintain its equipment.[6]

The law is unclear, however, on whether the Clean Air Act (CAA) preempts the plaintiffs' claims entirely.[7] If their claims are preempted, then there is no legal remedy available to put people injured by this and similar toxic exposures in the position they were in before the exposure.[8] People who receive personal injury or property damage at the hands of a negligent polluter should have a means of recouping the damages caused

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1 Laurel Brubaker Calkins & Margaret Cronin Fisk, *BP Texas Refinery Neighbors Seek Billions at Toxin Trial*, BLOOMBERG LAW (Sept. 9, 2013), http://about.bloomberglaw.com/legal-news/bp-texas-refinery-neighbors-seek-billions-at-toxin-trial.

2 *See* Plaintiffs' Steering Committee's Master Original Petition at 2, In re MDL Litig. Regarding Texas City Refinery Ultracracker Emission Event Litig., No. 10-UC-0001 (56th Jud. Dist. Ct., Galveston Cnty. Ct., Tex., filed Apr. 11, 2011) [hereinafter Original Petition], *available at* http://texascitymdldotcom.files.wordpress.com/2011/02/psc-master-petition-april-1-2011.pdf.

3 *Id*. at 5; U.S. ENVTL. PROT. AGENCY, BENZENE TEACH CHEMICAL SUMMARY 3, 5 (last updated Feb. 27, 2009), *available at* http://www.epa.gov/teach/chem_summ/BENZ_summary.pdf.

4 *See* Original Petition, *supra* note 2, at 1–6 (demonstrating an alleged history of BP's repeated harmful toxic releases and requesting $500 billion in punitive damages).

5 *See id*.

6 *See id*. at 1 (stating that BP's release of toxic chemicals "demonstrate[d] the human suffering caused when the drive for corporate profits takes priority over the safety of ordinary people").

7 In August 2013, a circuit split emerged regarding whether the CAA preempts state law tort claims against in state pollution sources. *Compare* Bell v. Cheswick Generating Station, 734 F.3d 188, 197 (3d. Cir. 2013) ("[T]he Clean Air Act does not preempt state common law claims based on the law of the state where the source of the pollution is located."), *with* North Carolina v. Tenn. Valley Auth., 615 F.3d 291, 303 (4th Cir. 2010) ("[F]ield and conflict preemption principles caution at a minimum against according states a wholly different role and allowing state nuisance law to contradict joint federal-state rules so meticulously drafted."). *See also* Erwin Dewey, Comment, *Dust in the Wind: Is* TVA*'s Permit Shield a Death Knell for Interstate Public Nuisance Claims*, 52 B.C. L. REV. 43, 48 (E. Supp. 2011) (stating that the Fourth Circuit's holding in *TVA* "created a circuit split").

8 *See* JJ England, *Saving Preemption in the Clean Air Act*, 43 ENVTL. L. 701, 746 (2013) (arguing that preemption of common law air pollution claims could "prevent harm incurred by individuals from ever being addressed").

by that polluter.[9] A finding that the CAA preempts state-law tort claims against in-state pollution sources would leave individuals harmed by a negligent polluter with no effective legal means of recovering actual damages.[10] Such a conclusion would conflict with the intent of Congress, case history, our contemporary sense of justice, and the preservation of the environment.[11] This Note argues that the CAA should not preempt state common law tort claims against in-state pollution sources because of (1) the presumption against preemption, (2) the CAA's saving clauses, and (3) existing holes in the Environmental Protection Agency's (EPA) regulatory framework.[12]

A significant amount of scholarship concerns the viability of state law nuisance claims to combat climate change due to greenhouse gas emissions.[13] However, most of these scholars spend little time discussing the viability of state common law claims, other than nuisance claims, for the recovery of personal injury and property damage arising outside the scope of global warming.[14] This Note seeks to add to the scholarship by addressing the current state of individual claims for damages resulting from in-state

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9 State common law tort claims provide the traditional means of recovering personal and property damages. *See* Mark A. Geistfeld, *The Principle of Misalignment: Duty, Damages, and the Nature of Tort Liability*, 121 YALE L.J. 142, 153 (2011) (relating that monetary losses under tort law "encompasses both the economic . . . and the noneconomic or nonmonetary losses proximately caused by [the] predicate physical harm"); *see also* OLIVER WENDELL HOLMES, JR., THE COMMON LAW 146 (Dover Publ'ns, Inc. ed. 1991) (1881) ("The purpose of the law is to prevent or secure a man indemnity from harm at the hands of his neighbors . . . .").

10 *See* England, *supra* note 8, at 746.

11 *See* Robert L. Glicksman, *Federal Preemption and Private Legal Remedies for Pollution*, 134 U. PA. L. REV. 121, 209–10 (1985) (stating that "courts should rule in favor of preserving state common law" due to the "presumption against preemption," "due process" concerns, and because state courts have traditionally regulated "public health and safety").

12 The question of whether the CAA preempts state tort claims against in-state pollution sources is unanswered by the Supreme Court and the majority of circuit courts. Cerny v. Marathon Oil Corp., No. SA-13-CA-562-XR, 2013 WL 5560483, at *3 (W.D. Tex. Oct. 7, 2013) ("[V]ery few cases have considered whether the CAA preempts state common-law claims of nuisance and negligence based on air emissions so as to provide for federal question jurisdiction. Neither the Fifth Circuit nor the Supreme Court have decided the issue."). The distinction between in-state and out-of-state pollution sources is an important one because the Supreme Court has held that citizens in one state cannot seek to enforce their home state's common law against a pollution source located in a different state. Int'l Paper Co. v. Ouellette, 479 U.S. 481, 496–97 (1987) (prohibiting plaintiffs from using the tort law of one state to regulate pollution sources in another state).

13 *E.g.*, Daniel A. Farber, *Climate Change, Federalism, and the Constitution*, 50 ARIZ. L. REV. 879 (2008) (discussing state regulation and tort activity within the confines of climate change); David R. Hodas, *State Law Responses to Global Warming: Is it Constitutional to Think Globally and Act Locally?*, 21 PACE ENVTL. L. REV. 53, 70–71 (2003) (discussing the viability of state lawsuits for climate change); David L. Markel & J.B. Ruhl, *An Empirical Assessment of Climate Change in the Courts*, 64 FLA. L. REV. 15 (2012) (providing an overview of state common law nuisance claims being brought for damages tied to climate change).

14 A WestlawNext advanced search of law reviews and journals for "'CAA' and 'preemption' and 'negligence'" yields 229 results, and of the relevant results the Author counts only three articles whose primary focus is not closely related to climate change litigation.

sources of pollution and argues that preemption of state common law claims—such as negligence, trespass, and battery—is inappropriate.[15]

Part II of this Note provides a brief primer on tort damages, relevant preemption law, and the CAA's saving clauses. Part III examines a circuit split that recently emerged in August 2013 concerning whether the CAA preempts individual claims seeking monetary compensation for injuries sustained from toxic releases. Part IV argues that the EPA's regulations support a finding that the CAA does not preempt state law claims. Part V proposes judicial and administrative actions to help ensure the protection of individual rights, and Part VI concludes.

II. PRIMER ON TORT LAW, IMPLIED CONFLICT PREEMPTION, AND CAA SAVINGS CLAUSES

A. THE TRADITIONAL ROLES OF THE TORT SYSTEM

Understanding the significance of CAA preemption of state law claims requires a survey of the traditional role of the tort system and tort damages. Tort law provides both a regulatory and a compensatory function.[16] It serves a regulatory function by encouraging safer conduct.[17] For example, in *Cipollone v. Liggett Group, Inc.* the Supreme Court held that the Public Health Cigarette Smoking Act of 1969 did not preempt state law claims.[18] Justice Stevens, writing for the plurality, illustrated the regulatory function of tort law by stating that "[t]he obligation to pay compensation can be, indeed is designed to be, a potent method of governing conduct and controlling policy."[19] Tort law's regulatory function can deter negligent conduct on the macro level by imposing liability against individuals or corporations on a micro level.[20] The regulatory function is one of the primary purposes of tort law.

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15 *See infra* Parts II–V.

16 *See* Catherine M. Sharkey, *Products Liability Preemption*, 76 GEO. WASH. L. REV. 449, 459–72 (2008) (describing tort law as having two primary roles, one regulatory and the other compensatory); *see also* Alexandra B. Klass, *Tort Experiments in the Laboratories of Democracy*, 50 WM. & MARY L. REV. 1501, 1509 (2009) (stating that there are "two major 'camps' of tort scholars," one regulatory and the other compensatory). The Author tends to side with the "compensatory camp" and views tort law "as a private means of restoring equilibrium between a victim and tortfeasor so as to make the victim whole." Klass, *supra*, at 1509.

17 *See* Richard A. Posner, *A Theory of Negligence*, 1 J. LEGAL STUD. 29, 31–32 (1972) (advancing the "regulatory role" of tort actions and observing its ability to cause defendants to increase safety when the cost of injury exceeds the cost of implementing safer practices).

18 Cipollone v. Liggett Grp., Inc., 505 U.S. 504, 530 (1992).

19 *Id.* at 521 (quoting San Diego Bldg. Trades Council v. Garmon, 359 U.S. 236, 247 (1959) (internal quotation marks omitted)).

20 *See* W. PAGE KEETON ET AL., PROSSER AND KEETON ON TORTS 15 (5th ed. 1984) ("The notion of 'public policy' involved in private cases is not by any means new to tort law, and doubtless has been with us ever since the troops of the sovereign first intervened in a brawl to keep the peace . . . ." (footnote omitted)).

Tort law also serves a compensatory function that seeks to place injured persons in the position they were in prior to the injury.[21] Although it is generally impossible to actually place injured parties in the place they were in before an injury, tort law accomplishes its compensatory function by providing injured parties with monetary damages.[22] While monetary damages are an imperfect metric to compensate for human suffering, they are the best method of providing relief known to the law.[23] They provide a "peaceful means" of resolving disputes that parties may otherwise attempt to resolve outside of the civil justice system.[24] If the CAA preempts state-law tort claims, then this important compensatory function is defeated, and people injured by hazardous chemical emissions from negligent polluters would have no means of recovery.[25]

B. Preemption of State-Law Tort Claims by the CAA

Preemption of state law by the CAA involves implied conflict preemption.[26] Conflict preemption occurs when "compliance with both federal and state regulations is a

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21 *See* Benjamin C. Zipursky, *Civil Recourse, Not Corrective Justice*, 91 Geo. L.J. 695, 700 (2003) ("One who causes a wrongful injury to another is obligated to compensate the other for the injury caused.").

22 *See id.*

23 *See* Lance McMillian, *Adultery as Tort*, 90 N.C. L. Rev. 1987, 2004 (2012) (recognizing that money damages are the best available method for compensating injured parties).

24 *See* Mark Latham et al., *The Intersection of Tort and Environmental Law: Where the Twains Should Meet and Depart*, 80 Fordham L. Rev. 737, 746 (2011) ("Stated plainly, tort law is intended to provide 'a peaceful means' by which 'to restore injured parties to their original condition' for harm caused by another's wrongful conduct." (quoting Victor E. Schwartz et al., Prosser, Wade and Schwartz's Torts: Cases and Materials 1–2 (12th ed. 2010)).

25 *See infra* note 70 and accompanying text.

26 Preemption by federal law is rooted in the Supremacy Clause of the United States Constitution. U.S. Const. art. VI, § 1 ¶ 2. Preemption is divided into three primary types: express preemption, occupied field preemption, and conflict preemption. Richard A. Epstein & Michael S. Greve, *Introduction: Preemption in Context*, *in* Federal Preemption: States' Powers, National Interests 1, 1–5 (Richard A. Epstein & Michael S. Greve eds., 2007). There is no applicable express preemption clause in the CAA. Robert L. Glicksman & Richard E. Levy, *A Collective Action Perspective on Ceiling Preemption by Federal Environmental Regulation*, 102 Nw. U. L. Rev. 579, 635 (2008) ("[T]here is no express preemption provision [in the CAA] applicable to stationary sources . . . ."). Occupied field preemption is unlikely to be in question because states retain the ability to regulate air quality, and the CAA specifically allows such regulation. *See id.* ("[T]he CAA clearly preserves the authority of states to regulate stationary sources more aggressively than required by federal law."). Occupied field preemption is typically reserved where the federal interest in regulation is so compelling as to displace all state concerns and state laws on the subject. *See* Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n, 461 U.S. 190, 212–13 (1983) (finding obstacle preemption of state laws attempting to regulate nuclear powerplant safety because the "scheme of federal regulation [was] so pervasive as to make reasonable the inference that Congress left no room to supplement it"). Conflict preemption, which includes situations where state law is an "obstacle" to the "full purposes and objectives of [C]ongress" is therefore the type of preemption most likely in question in regard to CAA preemption of state law tort claims. Hines v. Davidowitz, 312 U.S. 52, 67 (1984).

physical impossibility."[27] Or, alternatively, conflict preemption occurs when state law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."[28] "Congress is presumed not to consent to state regulation that interferes with federal law and policy . . . ."[29] Impossibility preemption is not in issue because polluters could comply with both state and federal regulation, even if the states were to place limitations that are more restrictive on pollution.[30] Whether the CAA preempts state tort law concerns the latter variety of conflict preemption, also known as "obstacle preemption."[31]

Two sources of federal law may preempt through obstacle preemption. The Supreme Court has repeatedly asserted "that state laws can be pre-empted by federal regulations as well as by federal statutes."[32] Thus, when determining whether the CAA preempts state law tort claims, it is necessary to consider both the language and interpretation of the statute, as well as the EPA's regulations.[33] In considering whether these sources of preemption bar individuals from recovering for harms caused by a polluter's negligence, the general presumption against preemption should continually serve as a reminder of preemption's limited scope.[34]

> [I]n all pre-emption cases, and particularly those in which Congress has "legislated . . . in a field which the [s]tates have traditionally occupied," . . . [courts] "start with the assumption that the historic police powers of the [s]tates were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress."[35]

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27 Fla. Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 142–43 (1963).

28 *Hines*, 312 U.S. at 67.

29 Seth P. Waxman & Trevor W. Morrison, *What Kind of Immunity? Federal Officers, State Criminal Law, and the Supremacy Clause*, 112 YALE L.J. 2195, 2219 (2003).

30 *See Fla. Lime & Avocado Growers, Inc.*, 373 U.S. 142–43 (noting that impossibility preemption does not apply to stricter state standards unless there is a direct conflict between the state and federal rules).

31 *See* Crosby v. Nat'l Foreign Trade Council, 530 U.S. 363, 372–73 (2000) (stating that the Court will find obstacle preemption "where it is impossible for a private party to comply with both state and federal law . . . and where under the circumstances of [a] particular case, [the challenged state law] stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.") (internal citations and quotation marks omitted). Impossibility preemption only occurs where it is physically impossible for an actor to comply simultaneously with both state and federal law. *Fla Lime & Avocado Growers, Inc.*, 373 U.S. at 142–43.

32 Hillsborough Cty. v. Automated Med. Labs., 471 U.S. 707, 713 (1985) (citing Capital Cities Cable, Inc. v. Crisp, 467 U.S. 691, 699 (1985)); Fidelity Fed. Sav. & Loan Ass'n. v. De la Cuesta, 458 U.S. 141, 153–54 (1982); United States v. Shimer, 367 U.S. 374, 381–83 (1961)).

33 *Hillsborough Cty.*, 471 U.S. at 713.

34 Wyeth v. Levine, 555 U.S. 555, 565 (2009) (describing the presumption against preemption as a "cornerstone" of preemption jurisprudence); Medtronic, Inc. v. Lohr, 518 U.S. 470, 485 (1996).

35 *Wyeth*, 555 U.S. at 565 (quoting Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230 (1947)).

Health and safety regulation, the type involved in regulating air pollutants, is a field traditionally regulated by the states.[36] The presumption against preemption is especially strong in fields of health and safety regulation.[37] To overcome the presumption that Congress did not intend to preempt state law, Congress's intent to preempt must be "clear and manifest."[38] Absent such a finding, the courts should determine that Congress did not intend to preempt state law claims.[39]

Federal courts have arguably shifted away from the presumption against preemption.[40] Some commentators have posited that preemption is insupportable on majoritarian or constitutional grounds.[41] It is correct that preemption doctrine treats different areas of state regulation inconsistently.[42] Yet, with respect to health and safety regulation, the type of regulation at issue with the CAA, the Court has adamantly held that the presumption against preemption is at its strongest.[43] The Court has never disavowed the presumption against preemption, and absent such a ruling, the presumption should control.[44]

C. The CAA's Saving Clauses

The CAA contains two saving clauses.[45] First, a saving clause within the citizen suit provision provides that "[n]othing . . . shall restrict any right which any person (or class

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36 *See Hillsborough Cnty.*, 471 U.S. at 719 ("[T]he regulation of health and safety matters is primarily, and historically, a matter of local concern.").

37 *See id.* at 718.

38 *Id.* at 715–16 (quoting *Rice*, 331 U.S. at 230).

39 *See id.* at 715–16.

40 *See, e.g.*, Jessica Bulman-Polzen & Heather K. Gerken, *Uncooperative Federalism*, 118 Yale L.J. 1256, 1303 (2009) (noting that the Court's "capacious view of what constitutes an obstacle for the purposes of conflict preemption have led some commentators to argue that there is a presumption in favor of preemption, despite the Court's refrain to the contrary") (citing Mary J. Davis, *Unmasking the Presumption in Favor of Preemption*, 53 S.C. L. Rev. 967, 968 (2002)); Erwin Chemerinsky, *Empowering States When It Matters: A Different Approach to Preemption*, 69 Brook. L. Rev. 1313, 1318–24 (2004) (arguing that the court has, in some instances, applied a presumption in favor of preemption).

41 *See* Jack Goldsmith, *Statutory Foreign Affairs Preemption*, 2000 Sup. Ct. Rev. 175, 182–83 (2000) (arguing against majoritarian and constitutional rationales for preemption).

42 *Id.* at 178 ("The Supreme Court's preemption jurisprudence is famous for its incoherence. The doctrines of preemption are vague and indeterminate.").

43 *E.g.*, Medtronic, Inc. v. Lohr, 518 U.S. 470, 485 (1996) (stating that the "clear and manifest purpose of Congress" is "particularly" necessary where "Congress has 'legislated . . . in a field which the [s]tates have traditionally occupied'" (citations omitted)); Cipollone v. Ligett Grp., Inc., 505 U.S. 504, 516 (1992) (construing a state statute attempting to regulate the "health hazards associated with smoking" and stating the "assumption that the historic police powers of the [s]tates [are] not to be superseded by . . . Federal Act unless that [is] the clear and manifest purpose of Congress" (alterations in original) (quoting *Rice*, 331 U.S. at 230 (internal quotation marks omitted)).

44 *See* Davis, *supra* note 40, at 969 ("[P]reemption doctrine is central to the definition of power and control under our federal system of government.").

45 *See* 42 U.S.C. §§ 7604(e), 7416 (2012). The purpose of saving clauses is to preserve rights or obligations from the scope of a statute's regulation. *See* Millard H. Ruud, *The Savings Clause—Some Problems in Construction and Drafting*, 33 Tex. L. Rev. 285, 286 (1955).

of persons) may have under any statute *or common law* to seek enforcement of any emission standard or limitation or to *seek any other relief* . . . ."[46] A second saving clause provides: "[N]othing in this chapter shall preclude or deny the right of any [s]tate or political subdivision thereof to adopt or enforce (1) *any standard or limitation* respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution . . . ."[47]

The Supreme Court has not directly interpreted these provisions as preserving state law tort claims against in-state sources of pollution.[48] Yet, in the 2011 case of *American Electric Power Co. v. Connecticut ("American Electric")*, the Court concluded that the CAA preempted federal nuisance law.[49] In that case, eight states, the city of New York, and three private land trusts brought federal common law public nuisance claims against fossil-fuel fired power plants and operators for their greenhouse gas emissions.[50] The Court held that the CAA preempted federal nuisance law claims; however, the Court expressly left open whether the CAA preempts state tort claims.[51] Importantly, the question of state-law claims was not before the Court, and it would have been improper for the Court to answer that question in *American Electric*.[52] However, the Court has held that state law claims against in-state pollution sources are not preempted in the context of the Clean Water Act (CWA), which has a saving clause nearly identical to the CAA.[53]

In *International Paper v. Ouellette*, the Supreme Court held that state-law claims analogous to those presented under the CAA are not preempted.[54] In *Ouellette*, landowners in Vermont sued the owner of a pulp and paper mill in New York under Vermont's common law of nuisance, arguing that pollution from the New York plant diminished their property value by polluting the water near their properties.[55] The Supreme Court began by citing its previous opinion in *Milwaukee v. Illinois*, in which the Court held that the 1970s amendments to the CWA made the statute "the most comprehensive and far

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46 42 U.S.C. § 7604(e) (2012) (emphasis added).

47 *Id.* § 7416 (emphasis added).

48 Cerny v. Marathon Oil Corp., No. SA-13-CA-562-XR, 2013 WL 5560483, at *3 (W.D. Tex. Oct. 7, 2013) (stating that the Supreme Court has not decided whether the CAA preempts state law claims against in-state sources of air pollution); *see also* Jeffrey N. Stedman, Note, *Climate Change and Public Nuisance Law:* AEP v. Connecticut *and Its Implications for State Common Law Actions*, 36 WM. & MARY ENVTL. L. & POL'Y REV. 865, 899 (2012) (observing that in *American Electric*, the "Supreme Court explicitly left open the question of whether plaintiffs might have a cause of action under state law").

49 Am. Elec. Power Co. v. Connecticut, 131 S. Ct. 2527, 2540 (2011) (holding that the CAA preempts federal common law nuisance claims).

50 *Id.* at 2532–34.

51 *Id.* at 2540 ("None of the parties have . . . addressed the availability of a claim under state nuisance law. We therefore leave the matter open for consideration on remand.").

52 *See* Harper v. Virginia Dept. of Taxation, 509 U.S. 86, 105 (1993) ("Prospective decision-making is the handmaid of judicial activism, and the born enemy of *stare decisis*.").

53 Int'l Paper Co. v. Ouellette, 479 U.S. 481, 485–86, 494 (1987) (analyzing the CWA's saving clauses and determining that the CWA does not preempt state law claims).

54 *Id.*

55 *Id.* at 483–84.

reaching provisions that Congress had ever passed in [the] area."[56] The Court further described the CWA as "an all-encompassing program of water pollution regulation."[57] The comprehensive scope of the CWA thus preempted all *federal common law claims*, but *Milwaukee* left open the question of the extent to which *state common law causes of action* survived.[58]

The Supreme Court held that "the only state suits that remain available are those specifically preserved by the [A]ct," which required the Court to interpret the scope of the CWA's saving clause.[59] The Court first held that a suit that sought to apply the nuisance law of one state to pollution emitted in a different state would upset the CWA's federal-state balance of interests.[60] The Supreme Court explained, "If a New York source were liable for violations of Vermont law, that law could effectively override both the permit requirements and the policy choices made by the source [s]tate."[61] Critically, however, the Supreme Court held that the concerns of disrupting the federal-state balance established in the CWA and a multiplicity of standards would not be implicated if landowners sued the New York mill under *New York's* common law of nuisance:

> Our conclusion that Vermont nuisance law is inapplicable to a New York point source does not leave respondents without a remedy. The CWA precludes only those suits that may require standards of effluent control that are incompatible with those established by the procedures set forth in the Act. The savings clause specifically preserves other state actions, and therefore nothing in the Act bars aggrieved individuals from bringing a nuisance claim pursuant to the *source* [s]tate. By its terms the CWA allows [s]tates such as New York to impose higher standards on their own point sources, and in [*Milwaukee v. Illinois*] we recognized that this authority may include the right to impose higher common law as well as higher statutory restrictions.[62]

The Court's conclusion that the CWA did not preempt state common law actions against in-state pollution sources should be persuasive authority for future decisions concerning the CAA because the CWA's saving clause is virtually identical to that of the CAA.[63]

The CAA and the CWA are considered sister statutes, containing similar purposes, statutory language, and methods of implementation.[64] As several courts have recognized,

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56 *Id.* at 488–89 (internal quotation marks and citations omitted).

57 *Id.* at 492 (quoting Milwaukee v. Illinois, 451 U.S. 304, 318 (1981)).

58 *Id.* at 489.

59 *Id.* at 492.

60 *Id.* at 494–95.

61 *Id.* at 495.

62 *Id.* at 497 (citations omitted).

63 *Compare* 42 U.S.C. § 7604(e) (2012) (providing that the CAA does not "restrict any right which any person . . . may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief"), *with* 33 U.S.C. § 1365(e) (2012) (providing that the CWA does not "restrict any right which any person . . . may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief").

64 *See, e.g.*, Robert W. Adler, *Integrated Approaches to Water Pollution: Lessons from the Clean Air Act*, 23 HARV. ENVTL. L. REV. 203, 206 (1999) (describing the CAA and CWA as

the CAA has a saving clause identical to the one that the Supreme Court relied on in *Ouellette* when it held that source-state nuisance actions were not preempted.[65] The reasoning of *Ouellette* permitting common law claims thus applies with equal force to source-state common law suits involving the emission of air pollutants.[66]

Properly applied to the CAA, *Ouellette* leads to the conclusion that the CAA does not preempt state-law tort claims against an in-state pollution source.[67] Yet, this exact question has recently created a split between the Third and Fourth Circuit.[68] Part III of this Note discusses the current disagreement among the circuit courts of appeals regarding whether the CAA preempts claims like those of the 48,000 people who claim that BP harmed them when the BP Texas City refinery released hundreds of thousands of pounds of toxic chemicals into the air.

III. THE CIRCUIT SPLIT

Whether individuals can recover monetary damages from a stationary in-state pollution source that negligently releases toxic chemicals into the atmosphere is uncertain.[69] Without such recovery, victims of negligent polluters regulated by the CAA have no direct remedy for the injuries they have experienced.[70] A division between the Third

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"'sister' statutes . . . shar[ing] certain important ideas and provisions" that were "largely written by the same pivotal members of Congress" and "enacted in their modern forms in the early 1970s in response to a new public awareness and outrage about the extent and dangers of air and water pollution"); Steven M. Siros, *Transboundary Pollution in the Great Lakes: Do Individual States Have Any Role to Play in Its Prevention?*, 20 S. ILL. U. L.J. 287, 292 (1996) (stating the "fact that both the CAA and the CWA developed as sister statutes").

65 Ontario v. City of Detroit, 874 F.2d 332, 343 (6th Cir. 1989) (noting that "defendants concede [the CWA saving clause] is identical to the saving clause [in the Clean Air Act]"); *see also supra* note 63 (comparing the language of the CAA saving clause with the language of the CWA saving clause).

66 Bell v. Cheswick Generating Station, 734 F.3d 188, 198 (3d Cir. 2013), *cert. denied*, GenOn Power Midwest, L.P. v. Bell, 134 S. Ct. 2696, 2014 U.S. LEXIS 3926 (U.S. June 2, 2014).

67 *See id.*

68 *See infra* Part III.

69 The Third and Fourth Circuits disagree, and the Supreme Court has yet to weigh in on the issue. *Cheswick Generating Station*, 734 F.3d at 196–97. *See also* Cerny v. Marathon Oil Corp., No. SA-13-CA-562-XR, 2013 WL 5560483, at *3 (W.D. Tex. Oct. 7, 2013) ("[V]ery few cases have considered whether the CAA preempts state common-law claims of nuisance and negligence based on air emissions . . . .").

70 While private individuals are authorized to sue under the CAA's citizen suit provisions for enforcement of a CAA standard, the citizen suit provisions do not provide for private compensation as remedy for harms resulting from violation of a CAA standard. *See* 42 U.S.C. §§ 7604(d), 7607(f) (2012). While courts may levy penalties and fines under the citizen suit provisions, those penalties are either put into a fund to finance air compliance and enforcement activities or are spent on projects to mitigate environmental damage caused by the violation. *See id.*

and Fourth Circuit Courts of Appeals has emerged, with the Third Circuit finding that the CAA does not preempt such claims and the Fourth Circuit finding them preempted.[71] Federal district court and state case law exists in other jurisdictions, but the remaining federal appeals courts have not yet reached a decision.[72] The tide is shifting toward the conclusion that common law suits are not preempted, but ultimately the question is one that the Supreme Court should answer—absent a statutory change to the CAA itself. This Part addresses the split among the circuit courts of appeals, as well as recent trial court decisions.

A. The Third Circuit Found No Preemption

Recently, the U.S. Supreme Court left standing a Third Circuit ruling that concluded the CAA did not preempt state law negligence, nuisance, and trespass claims against an in-state pollution source.[73] In *Bell v. Cheswick Generating Station*, roughly 1,500 plaintiffs who owned or lived in homes within one mile of GenOn Power Midwest L.P.'s coal-fired electric plant in Springdale, Pennsylvania sued for damages resulting from toxic emissions from the power plant.[74] They alleged, "GenOn's operation, maintenance, control, and use of the [p]lant release[d] malodorous substances and particulates into the surrounding neighborhood."[75] They claimed that the emissions visibly settled onto their property, necessitated regular cleaning of the outside of their homes, and had destroyed the "ability to use and enjoy their properties."[76] Additionally, they claimed the emissions were harmful and noxious to humans, making them "'prisoners in their [own] homes'" and causing personal injury.[77]

The district court found that the CAA preempted the plaintiffs' claims, but the Third Circuit disagreed. The Third Circuit recognized that "[f]ederal, state, and local authorities extensively regulate and comprehensively oversee the operations of the [plant]."[78] The court also noted that the EPA does not directly regulate most pollution sources, and instead states are tasked with creating and submitting State Implementation

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71 *Compare Cheswick Generating Station*, 734 F.3d at 197 ("[T]he Clean Air Act does not preempt state common law claims based on the law of the state where the source of the pollution is located."), *with* North Carolina v. Tenn. Valley Auth., 615 F.3d 291, 303 (4th Cir. 2010) ("[F]ield and conflict preemption principles caution at a minimum against according states a wholly different role and allowing state nuisance law to contradict joint federal-state rules so meticulously drafted.").

72 Arguably, however, the Sixth Circuit also ruled against preemption in 1989 when it ruled that state law claims seeking to enforce a state air pollution statute were not preempted by the CAA. Ontario v. City of Detroit, 874 F.2d 332, 343 (6th Cir. 1989).

73 *Cheswick Generating Station*, 734 F.3d at 197. Editor's Note: The Natural Resources Recent Development in this issue of the Texas Environmental Law Journal discusses in detail the briefs filed on the petition for certiorari in this case. *See* Carlos Romo & Sung Hwan Lee, *Natural Resources: Preemption and State Common Law Nuisance Claims – A Look at the Arguments*, 44 Tex. Env. L.J. 448 (Nov. 2014).

74 *Cheswick Generating Station*, 734 F.3d at 189.

75 *Id.*

76 *Id.* at 192.

77 *Id.*

78 *Id.* at 191.

Plans (SIPs) for the EPA's approval.[79] States enforce their own SIPs and must "implement a mandatory permit program that limits the amounts and types of emissions that each stationary source is allowed to discharge" into the atmosphere.[80] The important role that states play in implementing the CAA was a linchpin in the court's ultimate decision to allow common law suits.[81]

Another linchpin in the court's decision was the presumption against preemption.[82] The court recognized that the analysis always begins with the "assumption that the . . . powers of the [s]tates were not to be superseded by the Federal Act unless that was the clear and manifest intent of Congress."[83] Once the court found that there is "no meaningful difference between the Clean Water Act and the Clean Air Act for the purpose of . . . preemption analysis," it concluded that *Ouellette* controlled the outcome of the case.[84] Just as the Supreme Court held in *Ouellette* with respect to the CWA, the Third Circuit held that the CAA "does not preempt state common law claims based on the law of the state where the source of the pollution is located."[85] The Third Circuit's holding preserved the right of people injured by the negligent release of toxic pollutants to sue for recovery of damages.

B. The Fourth Circuit Found Preemption

In *North Carolina v. Tennessee Valley Authority* (*TVA*), the Fourth Circuit found that the CAA preempted public nuisance claims brought against the Tennessee Valley Authority, an executive branch agency that owned eleven coal-fired power plants.[86] The State of North Carolina sued the Tennessee Valley Authority under a public nuisance theory for a permanent injunction against emissions created by the coal-fired power plants.[87] Importantly, the claim was against both in-state and out-of-state pollution sources, and the court noted early in its decision that "the injunction improperly applied home state law extraterritorially, in direct contradiction to the Supreme Court's decision in *International Paper Co. v. Ouellette*."[88]

Throughout its opinion, the Fourth Circuit provided policy reasons why the CAA should preempt state-law nuisance claims. The court found that the CAA occupied the field of regulation, preventing state law claims because "the Clean Air Act opted rather emphatically for the benefits of agency expertise in setting standards of emissions controls."[89] Of special importance was the observation that in the "highly technical arena" of pollution regulation, courts "respect the strengths of the agency processes on which

79 *Id.* at 190.
80 *Id.*
81 *Id.* at 194–96, 198.
82 *Id.* at 193–96.
83 *Id.* at 198.
84 *Id.* at 196–98.
85 *Id.* at 196.
86 North Carolina v. Tennessee Valley Auth., 615 F.3d 291, 301–06 (4th Cir. 2010) [hereinafter TVA].
87 *Id.* at 296.
88 *See id.* at 296, 306–09.
89 *Id.* at 304.

Congress has placed its imprimatur."[90] The court doubted that Congress contemplated that a "judge holding a twelve-day bench trial could evaluate more than a mere fraction of the information that regulatory bodies can consider."[91] Indeed, the court spent much of its time discussing the relative expertise of expert agencies as justification for preemption.[92]

The Fourth Circuit was also concerned that a lack of uniformity would result from state common law suits. The court noted, "[a] company, no matter how well meaning, would be simply unable to determine its obligations ex ante" under a state tort regime.[93] The potential costs associated with preparing for the unknown were described as "formidable."[94] The panel appeared to find that the CAA's scope was comprehensive enough to require uniformity.[95]

Ultimately, however, the Fourth Circuit's decision leaves open the door to tort suits in two ways for plaintiffs, like those suing BP in Texas City, to challenge preemption of their state law claims. First, the court rightly noted that North Carolina's suit violated the source-state limitations of *Ouellette* and "compromised principles of federalism by applying North Carolina law extraterritorially to [Tennessee Valley Authority] plants located in Alabama and Tennessee."[96] There was no need for the court to discuss its policy reasons for preemption because the suit could be dismissed under the *Ouellette* rule alone.[97]

Second, *TVA* did not hold that the CAA would preempt all state law tort actions. The court stated that it "need not hold flatly that Congress has entirely preempted the field of emissions regulation. We cannot anticipate every circumstance that may arise in every future nuisance action."[98] The court's judicial restraint leaves plaintiff lawyers with an argument that *TVA* does not de facto proscribe state law tort suits. Indeed, several

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90 *Id.* at 305–06.

91 *Id.* at 305.

92 *Id.* ("'Courts are expert at statutory construction, while agencies are expert at statutory implementation.'" (quoting Negusie v. Holder 555 U.S. 511, 528–34 (2009) (Stevens, J., concurring in part and dissenting in part))).

93 *Id.* at 306.

94 *Id.* (quoting Palumbo v. Waste Techs. Indus., 989 F.2d 156, 162 (4th Cir. 1993)).

95 *See id.* ("[T]he statute 'carefully defines the role of both the source and affected States, and specifically provides for a process whereby their interests will be considered and balanced by the source [s]tate and the EPA.'" (quoting Int'l Paper Co. v. Ouellette, 479 U.S. 481, 497 (1987))). Apparently, the Fourth Circuit did not consider that the common law may be considered a part of the process whereby individual states could balance the interests of polluting corporations.

96 *TVA*, 615 F.3d at 306.

97 *See* Nigel Barrella, Comment, North Carolina v. Tennessee Valley Authority, 35 HARV. ENVTL. L. REV. 247, 255 (2011) ("Therefore, based on [the Fourth Circuit's] finding that North Carolina law was applied to out-of-state polluters, the court held that the ruling must be reversed.").

98 *TVA*, 615 F.3d at 302 (citations omitted). However, the *TVA* court left little room for such suits, stating that the Supreme Court "created the strongest cautionary presumption" against common law suits "that have the potential to undermine" federal regulatory laws. *Id.* at 303 ("[A] state law is preempted 'if it interferes with the methods by which the federal statute was designed to reach [its] goal.'" (quoting *Ouellette*, 479 U.S. at 494)).

lower court decisions have already noted that *TVA* does not actually hold that the CAA preempts all state law tort claims.[99]

C. Trial Court Decisions are in Flux

Several recent trial court decisions illustrate the shifting tide toward allowing individuals, like those suing BP in Texas City, to bring common law suits. First, in *Cerny v. Marathon Oil Corp.*, the United States District Court for the Western District of Texas held that the CAA did not preempt plaintiffs' claims for personal injury and property damage from stationary source emissions.[100] In reaching its decision, the court noted that

> the plain language of [the CAA] indicates that Congress did not intend the citizen suit provision to be the exclusive cause of action for claims arising out of emissions from statutory sources, as it expressly preserves the right of any person "under any statute or common law" to seek enforcement of "*any* emission standard or limitation or to seek *any other relief*."[101]

This language demonstrates that the CAA does not completely preempt state law tort suits.[102] The court made only passing mention of *TVA*, noting that "[t]he Fourth Circuit expressly did not 'hold flatly that Congress has entirely preempted the field of emissions regulation.'"[103] The fact that *TVA* explicitly left open a *possibility* of state regulation through tort may well be what leads to its ultimate disapproval.

The only recent decision to find preemption is *Freeman v. Grain Processing Corp.*, an Iowa state trial court case.[104] In that case, the plaintiffs were property owners living within a three-mile radius of the defendant's plant.[105] The court ultimately held on summary judgment that the CAA preempted the plaintiffs' negligence, gross negligence, and trespass claims.[106] However, *Freeman* relied on the federal district court's decision in *Bell*, which was later overruled by the Third Circuit on preemption grounds.[107] Additionally, the decision appears to have completely ignored the Supreme Court's precedent in *Ouellette*, and no court can impliedly overrule a Supreme Court decision.[108]

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99 *See infra* Part III.C.

100 Cerny v. Marathon Oil Corp., No. SA-13-CA-562-XR, 2013 WL 5560483, at *8 (W.D. Tex. Oct. 7, 2013).

101 *Id.* at *3 (alteration in original).

102 *See id.*

103 *Id.* at *7, n.1.

104 Order Ruling on Def.'s Mot. for Summ. J., Freeman v. Grain Processing Corp., No. LACV 021232, (Apr. 1, 2013), *available at* http://www.toxictortlitigationblog.com/uploads/file/3770_001(1).pdf.

105 *Id.* at 1.

106 *Id.* at 17–18.

107 *Id.* at 9–13.

108 *See* Note, *The Best of a Bad Lot: Compromise and Hybrid Religious Exemptions*, 123 HARV. L. REV. 1494, 1509 (2010) ("The lower courts' status as subordinate to the Supreme Court is both a constitutional command and a necessary corollary to a functional multilevel judiciary. It is unnecessary to belabor the difficulties that would ensue if the lower courts could disregard appellate decisions they found problematic or illogical; suffice to say they may not.").

The presumption against preemption and similarity between the CWA and CAA should lead to the conclusion that state common law claims are permissible.[109]

Cases where courts held that the CAA preempts common law claims rest on a quickly shrinking body of case law. The Third Circuit's application of *Ouellette*'s reasoning to the CAA and recent lower court decisions indicates that the argument that the CAA preempts common law claims is eroding.[110] Yet, despite recent decisions supporting common law tort claims, the law is relatively undeveloped.[111]

A conclusion that state law claims are preempted would be devastating to people harmed by the release of toxic chemicals and pollutants into the atmosphere by negligent actors.[112] If preemption were the rule, it would be impossible for people to recover for injuries suffered at the hands of in-state sources of pollution.[113] Such a result runs counter to the traditional role the tort system has played in enforcing modern systems of safety regulation.[114] The existing case law points toward the conclusion that common law claims for air pollution are not preempted. Part IV of this Note discusses why the CAA and EPA regulations also indicate that preemption is improper.

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109 *See* Wyeth v. Levine, 555 U.S. 555, 565 (2009) (stating that state law is not preempted absent a "clear and manifest" congressional intent, particularly with respect to health and safety regulation); Ontario v. City of Detroit, 874 F.2d 332, 343 (6th Cir. 1989) (noting that the CWA and CAA contain identical saving clauses).

110 Indeed, the argument that the CAA does not preempt state tort claims is not new. Within the context of in-state nuisance suits, commentators have argued that the CAA does not preempt for decades. Jason J. Czarnezki & Mark L. Thomsen, *Advancing the Rebirth of Environmental Common Law*, 34 B.C. ENVTL. AFF. L. REV. 1, 4–7 (2007) (arguing that preemption is not appropriate because "[s]tate common law can be an effective means to prevent and remedy environmental pollution, as well as provide full compensation for harmed victims"); Glicksman, *supra* note 11, at 188–91 ("The conclusion that state common-law compensatory remedies for intrastate injuries do not conflict with the federal statutes is reinforced by the courts' reluctance to preempt state tort liability."); Randolph L. Hill, *Preemption of State Common Law Remedies by Federal Environmental Statutes:* International Paper Co. v. Ouellette, 14 ECOLOGY L.Q. 541, 564 (1985) (arguing that, under the reasoning of *Ouellette*, in-state nuisance suits against in-state polluters should not be preempted by the CAA).

111 Cerny v. Marathon Oil Corp., No. SA-13-CA-562-XR, 2013 WL 5560483, at *3 (W.D. Tex. Oct. 7, 2013) ("[V]ery few cases have considered whether the CAA preempts state common-law claims of nuisance and negligence based on air emissions . . . .").

112 Without private remedies, the plaintiffs' only remedy would be the CAA's citizen suit provision, which does not provide for private compensation. *See* 42 U.S.C. §§ 7604(d), 7607(f) (2012); *see also infra* Part III. (describing the remedies available under the CAA's citizen suit provision).

113 *See supra* note 63 and accompanying text.

114 *See* John E. Noyes, *Implied Rights of Action and the Use and Misuse of Precedent*, 56 U. CIN. L. REV. 145, 186–87 (1987) (noting that safety regulations have been involved in many traditional tort cases); *see also infra* Part V.A.

IV. CAA AND EPA REGULATIONS CONTEMPLATE STATE TORT SUITS

The CAA's regulatory structure allows significant state involvement in regulating toxic chemical emissions.[115] Individual states perform a critical role in enforcing the CAA's requirements by issuing permits for the release of toxic chemicals and issuing citations for failure to adhere to the CAA's requirements.[116] States may even set air pollution standards at a stricter level than the CAA mandates.[117] Arguments that implied conflict preemption preempts state common law claims must recognize that both the CAA and the EPA's regulations contemplate state regulation of hazardous chemicals, such as benzene.[118]

In the Congressional Findings and Declaration of Purpose of the CAA, Congress states that air pollution control and prevention "is the primary responsibility of [s]tates and local governments."[119] The purpose of the CAA is to encourage pollution prevention through reasonable federal, state, and local government actions.[120] In fulfilling the CAA's purpose, Congress mandated that the EPA develop National Ambient Air Quality Standards (NAAQS) to control the overall amount of selected harmful pollutants allowable in the ambient air.[121] The NAAQS are the "yardstick by which we measure the quality of our air."[122] The CAA provides that states are to enforce the NAAQS through SIPs, where the states are required to maintain the primary responsibility for controlling the amount of pollution in the air.[123] Importantly, the EPA only requires states to enforce ambient air regulation on the pollutants regulated under the NAAQS scheme.[124]

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115 The statute's saving clause contemplates both individual and state actions for air pollution. *See* 42 U.S.C. § 7604(e) (providing with respect to individuals that "[n]othing in this section shall restrict any right which any person . . . may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief," and with respect to the states that they are not restricted from "bringing any enforcement action or obtaining any judicial remedy or sanction in any [s]tate or local court" or from "bringing any administrative enforcement action").

116 Bell v. Cheswick Generating Station, 734 F.3d 188, 190 (3d Cir. 2013).

117 Glicksman, *supra* note 11, at 189 (stating in reference to the CAA and CWA that "Congress authorized the states to adopt and enforce standards more stringent than those set by the EPA").

118 *See infra* notes 119–124 and accompanying text.

119 42 U.S.C. § 7401(a)(3).

120 *Id.* § 7401(c).

121 *Id.* § 7409(a).

122 Joseph M. Feller, *Non-Threshold Pollutants and Air Quality Standards*, 24 ENVTL. L. 821, 823 (1994).

123 *See* 42 U.S.C. § 7410.

124 *See id.* §7410 (a)(2)(C); *see also* Rich Raiders, *How EPA Could Implement a Greenhouse Gas NAAQS*, 22 FORDHAM ENVTL. L. REV. 233, 238–40 (2011) (stating that the EPA only requires states to develop SIPs with respect to the pollutants regulated under the NAAQS scheme).

There are only six "criteria" pollutants for which the EPA provides set standards for maximum allowable ambient air concentrations.[125] The EPA regulates these chemicals on the macro level—setting overall limitations on the amount of these chemicals allowable in the open air.[126] Though regulation of the six criteria pollutants plays an important role in maintaining clean air, the criteria pollutants are only a small portion of hazardous chemicals that can affect persons and property. The NAAQS do not regulate at least 187 hazardous chemicals, such as benzene, which can cause debilitating and destructive injuries to persons and property.[127]

While the EPA does regulate benzene and other volatile organic compounds (VOCs) in its national emission standards for hazardous air pollutants (NESHAPs), these regulations do not seek to control the overall amount of VOCs present in the air.[128] The NESHAPs regulate specific processes and equipment, and they seek to provide an "ample margin of safety," but they do not provide a comprehensive scope of regulation as do the NAAQS, which regulate the air in its totality.[129] Commentators have criticized the NESHAPs for failing to go far enough to protect human health and safety and adequately safeguard the environment.[130] Some have called for more robust regulation of hazardous chemicals falling outside of NAAQS scheme.[131] An alternative approach to correcting catalogued inadequacies of the CAA is an explicit recognition of state law tort suits as a viable method of protecting air quality.[132]

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125 They include: Carbon Monoxide (CO), Lead (Pb), Nitrogen Dioxide (NO2), Ozone (O2), Particulate Matter (PM), and Sulfer Dioxide (SO2). *National Ambient Air Quality Standards (NAAQS)*, ENVTL. PROT. AGENCY, http://www.epa.gov/ttn/naaqs/ (last visited Nov. 11, 2013). Notably, many known carcinogens, such as Asbestos, Beryllium, and Benzene, are not on this list. Raiders, *supra* note 124.

126 *National Ambient Air Quality Standards (NAAQS)*, ENVTL. PROT. AGENCY, http://www.epa.gov/air/criteria.html (last visited Nov. 21, 2013) (stating that violation of the NAAQS is measured by "areas" of ambient air, rather than by emissions of individual pollution sources).

127 42 U.S.C. § 7412(b)(1); *see also National Ambient Air Quality Standards (NAAQS)*, *supra* note 125 (listing only six pollutants subject to NAAQS regulation).

128 42 U.S.C. § 7412(d) (describing the NESHAPs as regulating individual sources, rather than ambient air quality).

129 *Id.* § 7412(c)(B)(ii).

130 *See, e.g.*, Kaitlyn R. Maxwell, *Eroding the Public's Right to Clean Air: Examination of the Hazardous Air Pollutants Exemption for Natural Gas Drilling Under the Clean Air Act*, 21 B.U. PUB. INT. L.J. 153, 187–89 (2011) (arguing that NESHAPs source-based regulation is inadequate to protect public health); Patrick D. Traylor, *Presumptive MACT as a Regulatory Tool to Streamline the Development of National Emission Standards for Hazardous Pollutants*, 4 ENVTL. LAW. 393, 420–23 (1998) (arguing that NESHAPs should be stricter to adequately control emissions).

131 *See, e.g.*, THOMAS J. SCHOENBAUM ET AL., ENVIRONMENTAL POLICY LAW: PROBLEMS, CASES, AND READINGS 735 (4th ed. 2002) (noting that the EPA has been reluctant to change the NAAQS to make them consistent with the most current technical data); Kassie Siegel, et al., *Strong Law, Timid Implementation—How the EPA Can Apply the Full Force of the Clean Air Act to Address the Climate* Crisis, 30 UCLA J. ENVTL. L. & POL'Y 185, 213–14 (2012) (advocating the expansion of NAAQS coverage).

132 *See infra* Part V.

The CAA and the EPA's recognition of state pollution management is demonstrated by CAA provisions and the EPA's regulations allowing states to enforce pollution standards that are more stringent than those in the CAA. Specifically, the CAA provides state courts and administrative agencies with authority to enforce pollution limitations and provide common law relief.[133] Similarly, the EPA has indicated its acceptance of state regulation by providing that "[n]o emission standard" under the CAA should be interpreted to diminish or replace "a standard issued under [s]tate authority."[134]

While the NESHAPs provide some federal regulation of hazardous chemicals, they do not provide a system of regulation that adequately addresses the risks to human health and safety presented by chemicals not regulated by the NAAQS.[135] Congress and the EPA recognize that states are empowered to both enforce existing EPA and CAA standards and require polluters to meet standards that are more stringent.[136] Tort suits are one of the state standards contemplated by the CAA, as evidenced by the saving clause language providing that individuals may seek to enforce the "*common law*" or any other available remedy against pollution sources.[137] Acceptance of state standards by Congress and the EPA indicates that the CAA was not intended to preempt state tort claims. Moreover, in the field of health and safety regulation, Congress's intent to preempt must be "clear and manifest."[138] Absent a clear mandate from Congress, the courts should presume that states retain their traditional authority to regulate health and safety matters through the tort system.[139]

Part V of this Note recommends that the circuit courts and the Supreme Court should hold that the CAA does not preempt state law claims, and it suggests that the EPA should promulgate rules specifically recognizing common law claims.

V. RECOMMENDATIONS

As plaintiffs file more common law tort suits against in-state pollution sources for personal injury and property damage, the courts and the EPA will be under increased legal and political pressure to resolve whether such claims are permissible. This Note argues that both the circuit courts of appeals and the Supreme Court should find that the

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133 *See* 42 U.S.C. § 7604(e) (permitting state authorities to "bring any enforcement action or . . . judicial remedy" and allowing "any person . . . "to seek enforcement of any emission standard or . . . seek any other relief").

134 40 C.F.R. § 63.1(a)(3) (2013).

135 *See* Sierra Club v. Jackson, No. 01-1537 (PLF), 2011 WL 181097, *1 (D.D.C. Jan. 20, 2011) (finding that the EPA failed to timely discharge its duties in development of the NESHAPs, and extending the EPA's deadline for compliance); *see also* Eric L. Hiser, *Air Quality Permitting: An Increasingly Limited Tool for a Sustainable Future*, 43 ARIZ. ST. L.J. 761, 775 (2011) (noting that circuit courts have held various parts of the EPA's NESHAP standards to be inadequate).

136 *See supra* notes 114–119 and accompanying text.

137 *See* 42 U.S.C. § 7604(e); *see also supra* note 115.

138 Wyeth v. Levine, 555 U.S. 555, 565 (2009); Hillsborough Cnty. v. Automated Med. Labs., 471 U.S. 707, 719 (1985).

139 *Wyeth*, 555 U.S. at 565.

CAA does not preempt state law claims. Additionally, this Note argues that the EPA should clarify its position by specifically recognizing that state "standards" can include the decisions of judges and juries in state tort cases.

A. Circuit Courts and the Supreme Court Should Allow Common Law Claims

There are three primary reasons why the Circuit Courts of Appeals and the Supreme Court should conclude that the CAA does not preempt state law claims against stationary sources: (1) the presumption against preemption and the CAA's saving clauses; (2) the traditional role of the tort system; and (3) existing holes in the EPA's regulatory framework. The presumption against preemption and the CAA's saving clauses alone should be a sufficient argument to establish that state law claims are preserved; however, taken together these three reasons provide ample grounds for an appellate court to determine that traditional state law claims are not preempted.

1. The Presumption Against Preemption and the CAA's Saving Clauses

The presumption against preemption is strongest where the federal government seeks to regulate areas traditionally reserved to the states.[140] For a federal law regulating health and safety to preempt state law authority, Congress's intent to preempt must be "clear and manifest."[141] A strong showing of congressional intent to preempt is required because the states have traditionally exercised exclusive control over health and safety regulation.[142] With the CAA, Congress has not demonstrated an intent to preempt common law claims. Indeed, the applicable saving clauses provide that the CAA does not prevent "any person" from enforcing their rights "under any statute or *common law* to seek enforcement of any emission standard."[143] Further, states themselves may enforce "any standard or limitation" on polluters.[144] Taken together, these saving clauses establish that Congress intended to preserve the common law rights of individuals to sue pollution sources regulated by the CAA for damages incurred.[145]

To find that preemption exists, Congress would have needed to state explicitly that they were preempting state common law suits or occupying the field of regulation.[146] For example, in *Medtronic, Inc. v. Lohr*, the Court found that the Medical Device Amendments of 1976 (MDA) preempted state common law claims against a defendant in compliance with the MDA because there was a provision within the federal statute expressly providing that "state requirements" could not exceed those in the MDA.[147] No analogous provision exists in the CAA. In fact, the opposite is true; Congress has shown a

140 *Hillsborough Cnty.*, 471 U.S. at 715–17.

141 *See Wyeth*, 555 U.S. at 565–66 (stating that Congress must have a "clear and manifest" purpose to preempt state law with respect to areas traditionally under state control, such as health and safety regulation).

142 *See id.*

143 42 U.S.C. § 7604(e) (emphasis added).

144 *Id.* § 7416.

145 Bell v. Cheswick Generating Station, 734 F.3d 188, 196–97 (3d Cir. 2013).

146 *Wyeth*, 555 U.S. at 565; *Hillsborough Cnty.*, 471 U.S. at 715.

147 Medtronic, Inc. v. Lohr, 518 U.S. 470, 502 (1996).

clear and manifest intent to preserve state common law claims through the CAA's saving clauses because they expressly provide that states can enforce *more stringent* standards than those in the CAA or provided by the EPA.[148] Congress has not expressed an intent to override the common law, and absent such an intent, the presumption against preemption should control. Following the presumption against preemption, circuit courts and the Supreme Court should find that the CAA does not preempt state law claims against in-state pollution sources.

2. THE TRADITIONAL ROLE OF THE TORT SYSTEM

The traditional role of the tort system offers a second reason why circuit courts and the Supreme Court should conclude that the CAA does not preempt state law tort claims. Tort law has traditionally served both regulatory and compensatory functions.[149] These functions are particularly apparent in the context of health and safety regulation.[150] Tort law provides a regulatory function by specifically deterring negligent air polluters who have caused harm to individuals.[151] It also serves a general deterrence function by warning other polluters of the likely outcome for negligently releasing toxic emissions.[152] Punitive damages are one means through which tort law accomplishes its regulatory function because these damages successfully achieve both specific and general deterrence.[153] A holding that the CAA does not preempt state common law claims could include reliance on the traditional regulatory function of tort law, especially in the context of health and safety regulation.

Additionally, tort law serves a compensatory function. The compensatory function is vital in the context of CAA preemption because without tort law damages individuals who have incurred personal injuries or property damage at the hands of negligent polluters would have no method of recovering for their harms.[154] Negligent actors have a moral obligation to attempt to place injured parties in the position they were in before the accident took place.[155] Without tort recovery, this important compensatory function

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148 *See supra* notes 46-47 and accompanying text (providing the language of the CAA's saving clauses that vests states with authority to enforce air pollution standards stricter than those in the CAA or the EPA's regulations).

149 *See* Sharkey, *supra* note 16, at 459–72 (describing tort law as having both regulatory and compensatory functions).

150 *See* Jean Macchiaroli Eggen, *The Synergy of Toxic Tort Law and Public Health*, 41 CONN. L. REV. 561 564–65 (2008) (recognizing that tort law has traditionally served compensatory and regulatory functions in the health and safety context).

151 *See id.* (stating that the tort system deters "future harmful conduct through restraints, financial or otherwise, imposed upon liable defendants by the judicial system").

152 *See id.*

153 *See* Amir Nezar, *Reconciling Punitive Damages with Tort Law's Normative Framework*, 121 YALE L.J. 678, 695 (2011) (noting that punitive damages are "socially remedial or regulatory in nature").

154 *See supra* note 70 and accompanying text (discussing the unavailability of private recovery through the CAA's citizen suit provision).

155 *See* Zipursky, *supra* note 21, at 700 ("The obligation is to make whole the victim of the injury for which one is responsible, and this obligation to make whole—a duty of repair, more succinctly—flows from treating the wrongful injuring as a matter of moral principle.").

is defeated. Additionally, as has been noted earlier, one of the primary reasons for the compensatory function is the peaceful resolution of disputes.[156] Without the possibility of recovery for actual damages, individuals injured by negligent polluters do not have an incentive to move the dispute off the streets and into the courtroom.[157] The compensatory function of tort law should persuade circuit courts and the Supreme Court, especially because a finding of preemption would bar individuals from recovering for actual harms suffered.

3. Existing Holes in the Regulatory Framework

Additionally, the existing EPA regulations do not adequately protect individuals from personal and property damage that can result from the negligent release of toxic chemicals into the air surrounding their towns and homes.[158] As further discussed in Subpart B of this section, the EPA does not require states to implement measures to restrict the volume of many dangerous chemicals, such as benzene, in the ambient air.[159] The EPA specifically recognizes that states may enforce more stringent standards than those it promulgates or those in the CAA.[160] These existing holes in the regulatory framework should further encourage circuit courts and the Supreme Court to conclude that the CAA does not preempt state law causes of action.

B. The EPA Should Promulgate Rules Specifically Recognizing Common Law Claims

In Part IV, this Note demonstrated that the EPA has recognized that the CAA does not preempt state "standards" and that the NAAQS, which the CAA mandates, do not regulate the concentration of numerous hazardous chemicals in the ambient air.[161] The EPA has recognized that state standards can be more stringent than those addressed by the CAA.[162] To more accurately reflect Congressional intent and provide clear direction to industry, the EPA should revise its current regulations to specifically recognize that state "standards" can include state court decisions.

Revising the EPA regulations serves the practical purpose of putting industry on notice that compliance with the CAA is a minimum requirement and allows industry to plan accordingly. When an industry has notice that it may incur state tort liability for negligent pollution, health and safety is promoted and the environment is better pro-

156 *See* Latham et al., *supra* note 24, at 746.

157 *Id.*

158 *See supra* Part IV (discussing why current regulations do not require states to monitor or regulate concentrations of many hazardous chemicals in the ambient air).

159 *See infra* Part V.B (discussing current holes in the EPA regulations that do not require ambient air regulation of hazardous chemicals, such as benzene).

160 The saving clauses of the CAA specifically provide that individuals may enforce "any . . . standard" and may sue under the "common law," and they further provides that states may enforce standards stricter than those in the CAA. *See* 42 U.S.C. §§ 7614, 7604(e) (2012).

161 *See supra* Part IV.

162 *See* 40 C.F.R. § 63.1(a)(3) (2013) (providing that "[n]o emission standard" under the CAA should be interpreted to diminish or replace "a standard issued under [s]tate authority").

tected because pollution sources will be forced to take additional reasonable steps to reduce pollution.[163]

Industry is likely to respond by arguing that state tort liability makes business planning difficult because tort liability results in unquantifiable and indeterminate standards on pollution emissions.[164] However, that is simply not the case. The standard for negligence is that of a reasonable operator.[165] It is not strict liability.[166] Businesses and individuals throughout the nation are under the standard of reasonableness for the vast majority of their dealings.[167] Industries that emit air pollutants, like most businesses, can adequately plan under the standard of reasonableness.[168] Justice is not rendered on a one-size-fits-all basis, and justice is certainly not rendered when individuals are provided no opportunity to recover actual damages for harms suffered.[169] While it is true that tort liability is case specific and therefore monetary damages to an individual may vary based upon the given situation, the proper administration of justice requires that polluters be held liable to individuals for harms they have caused.[170] Despite industry's likely dissatisfaction with tort liability, the reasonableness requirement is one that industry is capable of complying with, and it is specifically permitted by the CAA.

Additionally, industry may respond that EPA recognition of state tort suits would foster indeterminate standards because different juries can return varying results. Indeed, that variability in jury awards is a reality of the civil justice system.[171] However, jury award variability should not operate to deprive injured plaintiffs of their day in court. The majority of businesses are capable of operating in an environment where they may be subject to a jury's verdict, and there is little reason to believe industries that emit air

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163 Bates v. Dow Agrosciences LLC, 544 U.S. 431, 449–52 (2005) (noting that common law negligence standards can have beneficial impacts on health and safety and the environment).

164 *See* North Carolina v. Tenn. Valley Auth., 615 F.3d 291, 306 (4th Cir. 2010) (discussing concerns of indeterminate standards).

165 *See* Geistfeld, *supra* note 9, at 144 (demonstrating that the standard of care for negligence tort liability is the "standard of reasonable care [that] determines how the dutyholder should behave in light of [the] risks").

166 *See id.* (distinguishing between negligence liability and strict liability, which requires no fault).

167 *See Bates*, 544 U.S. at 452 (stating that most industry parties "every day bear the risk of conflicting jury verdicts," and therefore bear the risk of incurring tort liability).

168 *See id.* (stating within the context of preemption of state common law by the Federal Insecticide, Fungicide, and Rodenticide Act that "there is no reason to think" the involved manufacturers could not operate under tort liability as most businesses do).

169 *Cf.* Eric A. Posner & Cass R. Sunstein, *Dollars and Death*, 72 U. CHI. L. REV. 537, 539 (2005) ("Tort law uses a case-specific number to assess damages, making individual differences crucial . . . .").

170 *See id.*

171 *See, e.g.*, Randall R. Bovbjerg et al., *Valuing Life and Limb in Tort: Scheduling "Pain and Suffering,"* 83 NW. U. L. REV. 908, 919–24 (1989) (demonstrating empirically that jury awards can vary substantially); Byron G. Stier, *Jackpot Justice: Verdict Variability and the Mass Tort Class Action*, 80 TEMP. L. REV. 1013, 1018–28 (2007) (recognizing persistent jury award variability).

pollutants are incapable of doing the same.[172] Defendants can take comfort in the fact that there are both state law and federal constitutional limits on punitive damage awards.[173] Thus, if a jury were to return an unconstitutionally excessive punitive damage award, that award could be reduced on appeal.

The EPA's recognition that state "standards" can include verdicts in state tort suits would comport with the language of the CAA explicitly preserving common law claims.[174] The EPA should revise its current regulations to reflect the possibility of tort liability. This change would be an effective mechanism of putting industry on notice that they are held to the standard of a reasonable operator and could be found liable for failing to meet that standard. The EPA's recognition of state tort suits is especially warranted due to the lack of macro-level federal regulation of numerous toxic chemicals in the ambient air.

VI. Conclusion

State law claims against stationary sources are necessary for effective regulation of air pollution. They achieve both specific and general deterrence of negligent air polluters and may, if there is a finding of liability, restore parties to the position they were in prior to the injury. Congress has recognized that state common law claims may coexist with the CAA and the EPA's regulations. The CAA provides that states may enforce pollution limitations that are *more stringent* than those in the CAA or provided by the EPA.[175] Additionally, the EPA does not require states to enforce ambient air quality standards for many of the most dangerous toxic chemicals.[176] Plaintiffs, like those suing BP in Texas City, should have an opportunity to recover damages should they be successful in proving liability.

The circuit courts and the Supreme Court should find that the presumption against preemption and the express language of the CAA preserves state tort claims against in-state pollution sources.[177] Preemption law has long recognized the important role that

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172 *See* Posner, *supra* note 17, at 30 ("[A] negligence standard of liability, properly administered, is broadly consistent with an optimum investment in accident prevention by the enterprises subject to the standard.").

173 The United States Constitution does not set a "bright line" limitation on punitive damages, however, the Court has recognized that an award in excess of ten times actual damages is unlikely to satisfy due process. *See* State Farm Mut. Auto. Ins. Co. v. Campbell, 538 U.S. 408, 425 (2003) ("[I]n practice, few awards exceeding a single-digit ratio between punitive and compensatory damages . . . will satisfy due process."). State constitutions and statutes also provide significant limitations on punitive damages. Dan Markel, *How Should Punitive Damages Work?*, 157 U. Pa. L. Rev. 1383, 1393 (2009) ("[M]ost states have introduced a flurry of caps, multipliers, and other limits on punitive damages." (footnote omitted)).

174 *See* Glicksman, *supra* note 11, at 117 ("Congress authorized the states to adopt and enforce standards more stringent than those set by the EPA.").

175 *See id.*

176 *See supra* notes 121–129 and accompanying text (discussing current EPA regulations, which do not provide for ambient air restrictions of many hazardous chemicals).

177 Hyundai Motor Co. v. Alvarado, 974 S.W.2d 1, 5 (Tex. 1998) ("'[I]f in close or uncertain cases a court proceeds to preempt state laws where that result was not clearly the product of

state tort law claims have played in our civil justice system.[178] The traditional role of tort law and existing regulatory holes provide further support for the conclusion that the CAA does not conflict with state common law. Additionally, the EPA should revise its regulations to recognize that state "standards" include common law claims. This revision is necessary to put businesses on notice that they will be held to the standard of a reasonable operator.

Judicial and regulatory recognition of the continuing validity of state tort suits against in-state pollution sources would comport with Congressional intent, the presumption against preemption, and the traditional role of the tort system. Without the availability of common law claims, individuals suffering harms caused by the negligent release of toxic chemicals into the air, such as the plaintiffs in Texas City suing BP, will have no legal recourse to make them whole.

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Congress's considered judgment, the court has eroded the dual system of government that ensures our liberties, representation, diversity, and effective governance.'" (quoting KENNETH STAR ET AL., THE LAW OF PREEMPTION: A REPORT OF THE APPELLATE JUDGES CONFERENCE 40 (American Bar Association, 1991)).

178 *See* Medtronic, Inc. v. Lohr, 518 U.S. 470, 484–85 (1996) ("[B]ecause the [s]tates are independent sovereigns in our federal system, we have long presumed that Congress does not cavalierly pre-empt state-law causes of action."); Gillian E. Metzger, *Federalism and Federal Agency Reform*, 111 COLUM. L. REV. 1, 33 (2011) (noting the connection between poor agency performance and tort law's compensatory function); *see also* KEETON ET AL., *supra* note 20, at 19 (5th ed. 1984) (describing tort law as historically influenced by statute).

Whooping Cranes and Water Management: Cautionary Tale or Cooperative Management in the Making?

By Lindsay Dofelmier

I. Introduction

Texas's recent water woes are well-documented. In 2011, the state suffered the single lowest year of rainfall and costliest drought on record.[1] According to news reports, in 2012, two cities' water supply nearly ran dry as a result of the ongoing drought.[2] In response, in 2013, the state finally took action to help ensure the future water needs of the state's burgeoning population with the legislature's passage of House Bill 4 (H.B. 4) and voters' subsequent acquiescence to this plan with the passage of Proposition 6.[3] The

1 Jim Forsyth, *Texas' 2011 Drought Costliest in State History: Researchers*, Reuters (Mar. 21, 2012, 8:36 PM), http://www.reuters.com/article/2012/03/22/us-drought-texas-idUS-BRE82L00220120322; *Everything You Need to Know About the Texas Drought*, StateImpact, http://stateimpact.npr.org/texas/tag/drought/ (last visited Nov. 8, 2013).

2 *Two Texas Towns Run Out of Water*, PBS Newshour (Mar. 20, 2012, 5:44 PM), http://www.pbs.org/newshour/updates/science/jan-june12/texaswater_03-20.html.

3 Terrance Henry, *How Prop 6 Passed and What's Next for Water Projects in Texas*, StateImpact (Nov. 5, 2013, 8:42 PM), http://stateimpact.npr.org/texas/2013/11/05/texas-

human toll of the drought has become palpable—from irrigators who have been unable to secure water supply contracts,[4] and those who are challenging the alteration of their water rights under the "Drought Curtailment Rule,"[5] to urban dwellers who have become accustomed to usage restrictions.[6] But in all the coverage of the drought's legal, political, and social effects on humans, another interested group has been largely excluded from the discussion—endangered species.

While recent drought conditions have largely taken center-stage, Texas is no stranger to dry conditions. Since the drought of record in the 1950's, until 2011, the 2008–2009 drought was reported as the next driest similar period on record in the state.[7] Humans and animals alike felt the severity of that year's drought. Devastating losses affected farmers, ranchers—and whooping cranes. Not surprisingly, the painful effects of recent Texas droughts are beginning to influence water management decisions.[8] As the Texas Commission on Environmental Quality (TCEQ or "Commission"), the state agency with responsibility for managing the state's surface water resources,[9] struggles to meet increasing demands with the finite amount of water in the state's river basins, the legislature and the Commission have begun to recognize the difficulty of doing so within the rubric of prior appropriation.[10] As in other basins throughout the arid West, many of

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water-fund-passes/; Tex. S. J. Res. 1, 83rd Leg., R.S., 2013 Tex. Gen. Laws 4877 (proposing to amend TEX. CONST. art. III, § 49-g).

4 *See* TEX. COMM'N ENVTL. QUALITY, Docket No. 2014-1044-WR, *Order Affirming an Order issued by the Executive Director that grants an Emergency Order to the Lower Colorado River Authority*, Attachment A, Findings of Fact Nos. 12 & 14 (Aug. 15, 2014); TEX. COMM'N ENVTL. QUALITY, Docket No. 2014-0124-WR, *Order Affirming an Order issued by the Executive Director that grants a renewal of the Emergency Order issued to the Lower Colorado River Authority* (June 17, 2014); TEX. COMM'N ENVTL. QUALITY, Docket No. 2014-0124-WR, *Order Affirming in Part, and Modifying in Part, the Executive Director's Emergency Order Authorizing the Lower Colorado River Authority to Amend its Water Management Plan* (Feb. 27, 2014); TEX. COMM'N ENVTL. QUALITY, Docket No. 2013-0225-WR, *Order Granting an Emergency Authorization to the Lower Colorado River Authority* (July 26, 2013); TEX. COMM'N ENVTL. QUALITY, Docket No. 2013-0225-WR, *Order Affirming, with Modification, an Emergency Order Granted by the Executive Director to the Lower Colorado River Authority* (Feb. 19, 2013); TEX. COMM'N ENVTL. QUALITY, Docket No. 2011-2096-WR, *Order Affirming an Emergency Order Granted by the Executive Director to the Lower Colorado River Authority* (Dec. 12, 2011).

5 TEX. WATER CODE ANN. § 11.053 (West 2013). *See* Tex. Farm Bureau v. Tex. Comm'n Envtl. Quality, No. D1–GN–12–003937, 2012 WL 6221004 (Tex. Dist. Dec. 14, 2013).

6 *See List of Texas Public Water Systems Limiting Water Use to Avoid Shortages*, TEX. COMM'N ENVTL. QUALITY, http://www.tceq.texas.gov/drinkingwater/trot/droughtw.html (last updated May 14, 2014).

7 James McKinley, Jr., *Heavy Rains End Drought for Texas*, N.Y. TIMES (Jan. 8, 2010), *available at* http://www.nytimes.com/2010/01/09/science/earth/09drought.html?_r=0.

8 *See* 30 TEX. ADMIN. CODE §§ 36.1–36.8 (2013) (Tex. Comm'n Envtl. Quality, Suspension or Adjustment of Water Rights During Emergency Water Shortage); Tex. S.B. 3, Act of May 28, 2007, 80th Leg., R.S., ch. 1430, 2007 Tex. Gen. Laws 5848; Tex. H.B. 4, Act of May 28, 2013, 83rd Leg., R.S., ch. 207, 2013 Tex. Gen. Laws 877.

9 TEX. WATER CODE §§ 5.012, 5.013 (West 2013).

10 *See Tex. Farm Bureau*, 2012 WL 6221004 (The Texas Farm Bureau sought declaratory judgment that the TCEQ Drought Curtailment Rules "are invalid and exceed TCEQ's statutory

Texas's most crucial river basins are already over-appropriated.[11] Consequently, even as the state grapples with painful decisions of how to prioritize needs in times of shortage, while clarifying its authority for doing so, considerations of instream flows in surface water allocations continue to yield to the demands of municipalities, farmers, ranchers, and industrial users—if they're even considered at all. With too little water to meet existing human needs, even in normal rainfall years, the needs of species that are dependent on instream flows have taken a back seat to other water demands more directly related to human needs.

Enter the Endangered Species Act (ESA or "Act"). Given the Act's expansive coverage and, under the provisions prohibiting "take" and "jeopardy,"[12] concerned citizen groups have begun to mount attacks on both federal and state water management regimes across the West that fail to ensure adequate flows for endangered species viability. The most recent attack has been on Texas's surface water management regime in the Guadalupe-San Antonio river basins in *Aransas Project v. Shaw* ("*TAP*").[13] However, the *TAP* conflict is not the first—nor will it be the last—battle between those committed to protecting endangered species and entities with authority over the allocation of Texas's surface water. Similar legal pressures and demands as those found in the *TAP* case eventually led to the creation of the Edwards Aquifer Authority (EAA).[14] Moreover, with a funding mechanism for Texas's State Water Plan (SWP)[15] now secured, SWP projects planned in areas critical to other covered species seem poised to generate future conflicts.[16]

This Note examines Texas's water management regime and its implications for endangered species, using the *TAP* case as a tool for predicting and analyzing future conflicts between the ESA and Texas's prior appropriation doctrine. Section I provides an overview of the topic. Section II outlines Texas's water management scheme and the conflicting mandates of the ESA, first by focusing on provisions that address the TCEQ's authority (or lack thereof) to re-prioritize and amend existing water rights and to take instream flows into account when reviewing water rights applications and modifications. This Note then analyzes how Sections 7 and 9 of the ESA apply to water management and ESA conflicts in practice, using litigation over water use in the Klamath river basin

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authority because they allow deviation from the priority system and the exemption of water rights for preferred uses from a curtailment or suspension order[.]").

11 Ronald A. Kaiser & Shane Binion, *Untying the Gordian Knot: Negotiated Strategies for Protecting Instream Flows in Texas*, 38 NAT. RESOURCES J. 157, 159 (1998).

12 "Take" and "Jeopardy" under Sections 9 and 7 of the ESA, respectively, are discussed in further detail *infra* Section II.B-D.

13 Aransas Project v. Shaw, 756 F.3d 801 (5th Cir. 2014).

14 The Edwards Aquifer Authority and the litigation surrounding its creation is discussed in further detail *infra* Section II.

15 TEX. WATER DEV. BD., 2012 STATE WATER PLAN, *available at* htto://www.twdb.texas.gov/waterplanning/swp/2012/index.asp [hereinafter 2012 STATE WATER PLAN].

16 *See generally* Henry, *supra* note 3 (explaining that Prop. 6, passed in November 2013, allocated $2 billion from the Rainy Day Fund for use in the State Water Implementation Fund for Texas (SWIFT) and the State Water Implementation Revenue Fund for Texas (SWIRFT) to fund SWP water infrastructure projects).

in Oregon and California[17] ("*Klamath*") and the Edwards Aquifer in central Texas[18] ("*Edwards Aquifer Authority" or "EAA"*) to illustrate the differences. Section III discusses the *TAP* case and the main arguments it raises, all of which are likely to resurface in future litigation in the ongoing conflict between state water management and federal endangered species mandates. Section IV analyzes the implications of the *Klamath, EAA* and *TAP* cases for two other species whose water needs appear to be on a collision course with the SWP. Finally, Section V concludes with lessons we can learn from these cases and recommendations for minimizing such conflicts in the future.

II. WATER MANAGEMENT AND THE ESA

The nondiscretionary duties of the ESA and the statutory mandates of the Texas Water Code appear fundamentally incompatible. Under the ESA, causing or contributing to the harm of a listed species is absolutely prohibited.[19] In contrast, the Texas Water Code imposes no similarly nondiscretionary duties on the TCEQ to place the needs of endangered species above others in water allocation decisions. Recent cases in Texas and Oregon illustrate that non-consideration of endangered species' needs in water management decisions leads to litigation, but that the differences between Sections 7 and 9 of the ESA have important implications for how these cases play out.[20]

A. TEXAS WATER MANAGEMENT

Texas surface water management is in crisis. Recent droughts have illustrated that the need for regulatory flexibility in responding to conflicting needs during water shortages is more important than ever. Such flexibility, however, depends on the authority of the TCEQ to alter or reprioritize state surface water rights in times of need—a policy that is fundamentally at odds with the state's prior appropriation doctrine and attendant recognition of water rights as vested property rights. As the Texas Water Conservation Association (TWCA) makes clear in its amicus curiae brief for the *TAP* case, the TCEQ may alter water rights only under two limited circumstances: (1) when the terms and conditions of existing water rights provide for modification; and (2) when permittees have applied to the TCEQ for amendments.[21]

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17 Klamath Water Users Ass'n v. Patterson, 15 F. Supp. 2d 990 (D. Or. 1998), *aff'd* 204 F.2d 1206 (9th Cir. 1999).

18 Sierra Club v. City of San Antonio, 112 F.3d 789, 791 (5th Cir. 1997).

19 16 U.S.C. § 1538 (2013).

20 *See, e.g.*, *Klamath Water Users Ass'n* 15 F. Supp. 2d at 993 (D. Or. 1998), *aff'd* 204 F.2d 1206 (9th Cir. 1999); *Sierra Club*, 112 F.3d at 791; Aransas Project v. Shaw, 835 F. Supp. 2d at 251, 255 (S.D. Tex. 2011).

21 Brief for TWCA as Amici Curiae Supporting Appellants at 8–15, Aransas Project v. Shaw, 756 F.3d 801 (5th Cir. 2014), *available at* http://thearansasproject.org/wp-content/uploads/2009/11/TWCAs-Amicus-Curiae-Brief-5-9-2013.pdf (citing TEX. WATER CODE. ANN. §§ 11.147, 11.1471, 11.085).

Notwithstanding the ambiguity of Texas Water Code section 11.053,[22] the district court cited that provision in its findings of fact for the proposition that TCEQ had broad legislative delegation to modify water rights in times of drought when public health and safety reasons require such modification.[23] Notably, even accepting such a broad view of the TCEQ's authority, however, health and safety reasons do not include concerns for endangered species habitat, and the TCEQ only has authority over environmental flow needs when expressly authorized by the legislature.[24] Instream use is not recognized as a beneficial use for which water may be appropriated as a sole purpose, which further retards the development of environmental flow considerations.[25]

In an arguably half-hearted attempt to address some of these shortcomings, the legislature enacted Senate Bill 3 in 2007 (S.B. 3), a bill aimed at addressing environmental flow needs while balancing the needs of all uses.[26] While S.B. 3 did address environmental concerns to some extent, the duty of the TCEQ to consider environmental flows in permitting decisions remains voluntary under S.B. 3.[27] Furthermore, the "reopener provision" of Texas Water Code section 11.147(e-1), which allows the TCEQ to modify a permit to provide for increased environmental flows once environmental flows standards have been adopted or amended, only applies to new water rights or amendments to existing water rights.[28] Because S.B. 3's provisions were not effective until September 2007 and the majority of the state's major river basins were already over-appropriated by then, S.B. 3 fails to address existing water rights and water usage. Consequently, Section 11.147 offers little consolation for environmental flow protection.

Strictly environmental concerns aside, the authority of the TCEQ to reprioritize water rights at all during a drought is in question, as illustrated by the recent litigation over the "Drought Curtailment Rule."[29] With the enactment of Section 11.053 in 2011, the legislature authorized the TCEQ to suspend or adjust water rights in accordance with the priority system of Texas Water Code section 11.027 and consistent with the order of beneficial use preferences established within Section 11.024 of the Texas Water Code.[30] Pursuant to Section 11.053, the TCEQ issued rules allowing the Commission to suspend

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22 *See* Tex. Farm Bureau v. Tex. Comm'n Envtl. Quality, No. D1–GN–12–003937, 2012 WL 6221004 (Tex. Dist. Dec. 14, 2013).

23 Aransas Project v. Shaw, 930 F. Supp. 2d 716, 740–44 (S.D. Tex. 2013).

24 *See* Tex. Water Code Ann. § 11.0235 (West 2013).

25 *See id.* §§ 11.024, 11.0235(d)(1).

26 *Id.* § 11.1471.

27 *See id.* § 11.0235(c) ("The legislature has expressly required the commission, while balancing all other public interests, to consider and, *to the extent practicable*, provide for the freshwater inflows and instream flows necessary to maintain the viability of the state's streams, rivers, and bay and estuary systems in the commission's regular granting of permits for the use of state waters.") (emphasis added).

28 *Id.* § 11.147(e-1).

29 30 Tex. Admin. Code §§ 36.1–36.8 (Tex. Comm'n Envtl. Quality, Applicability); Tex. Farm Bureau v. Tex. Comm'n Envtl. Quality, No. D1–GN–12–003937, 2012 WL 6221004 (Tex. Dist. Dec. 14, 2013) (seeking declaratory judgment that "the TCEQ Drought Curtailment Rules . . . are invalid and exceed TCEQ's statutory authority because they allow deviation from the priority system and the exemption of water rights for preferred uses from a curtailment or suspension order[.]").

30 *See* Tex. Water Code § 11.053 (2013).

senior water rights in favor of preferred junior uses in times of drought, known as the "Drought Curtailment Rule."[31] Several months later, the TCEQ invoked this rule to suspend several senior-rights holders on the Brazos River to satisfy a priority call by Dow Chemical.[32] In response, affected senior-rights holders filed suit alleging that the Drought Curtailment Rule was invalid because it violated the prior appropriation system.[33] During oral argument, the presiding judge lamented that the legislature had given the TCEQ the impossible task of adjusting water rights to be responsive to competing needs in times of shortage while remaining faithful to the priority rights system.[34] He opined that, in the absence of further legislative action, the case should make its way to the Texas Supreme Court for clarification of the TCEQ's authority in light of such a conflicting mandate.[35] Consequently, the judge sided with the Texas Farm Bureau in concluding that the TCEQ is not authorized to exempt cities and power plants with junior water rights because such reprioritization violates the priority doctrine established in the Texas Water Code.[36] The case is now on appeal in the Corpus Christi Court of Appeals, but because the Travis County Court denied the Texas Farm Bureau's motion on supersedeas, the TCEQ can continue to implement its rules during appeal.[37] With Supreme Court resolution likely years away, and without further legislative guidance on the TCEQ's authority to suspend or amend water rights beyond the three limited circumstances discussed above, further conflicts seem increasingly likely if drought conditions continue.[38]

B. THE ENDANGERED SPECIES ACT

The ESA is arguably the nation's toughest and most controversial environmental law, largely because the duties it imposes are broad and uncompromising: all "persons," including government agencies and states, are prohibited from causing a "take" of protected species.[39] Sections 7 and 9 are the focus of the Act's nondiscretionary duties. However, there are several notable differences between these sections. Section 7 generally evaluates an activity in terms of the effect on the overall well-being of a listed

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31 30 TEX. ADMIN. CODE §§ 36.1–36.8 (Tex. Comm'n Envtl. Quality, Applicability).

32 Order Suspending and Adjusting Water Rights in the Brazos River Basin for a Senior Call (Tex. Comm'n Envtl. Quality, July 7, 2013), *available at* http://www.tceq.texas.gov/assets/public/response/drought/water-right-letters/07-02-13Brazos-order.pdf.

33 *Tex. Farm Bureau*, 2012 WL 6221004.

34 Transcript of Hearing on Plaintiff's Motion for Summary Judgment at 60–61, *Tex. Farm Bureau*, 2012 WL 6221004 (Tex. Dist. June 6, 2013).

35 *Id.*

36 *Id.*

37 Texas Farm Bureau, Agriculture News, 2013 Accomplishments and News (Jan. 3, 2014), *available at* http://www.texasfarmbureau.org/newsmanager/templates/txfbtemplate.aspx?articleid=13695&zoneid=199.

38 In response to a subsequent priority call by Dow and because the case is on appeal leaving the Drought Curtailment Rule in place for now, TCEQ again invoked it on July 2, 2013. Rainfall eventually led TCEQ to rescind the call. *TCEQ Lifts Restrictions on Water Rights*, TEX. COMM'N ENVTL. QUAITY (Oct. 10, 2013), *available at* http://www.tceq.texas.gov/news/releases/10-13brazoslifted10-10.

39 "Take" is defined at 16 U.S.C. § 1532(19) (2013) and at *id.* § 1538(a)(B)–(C).

species—the "jeopardy" finding—and only applies to federal agencies and permittees.[40] Under Section 7, federal agencies must "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence" of any threatened species, or adversely modify its designated critical habitat.[41] In contrast, Section 9 applies to all "persons," including private individuals, corporations, and federal and non-federal government officials and entities, and prohibits direct and indirect harm to members of the species.[42] Section 9 also prohibits activities connected with "harm" to organisms, including the transportation, possession or sale of any endangered species.[43] Another difference between the two sections is that Section 9 gives greater protection to fish and wildlife than plants and can give greater protection to endangered species than threatened species, while Section 7 makes no such distinctions.[44]

Under Section 7, federal agencies must undergo "consultation" with the appropriate federal fish and wildlife agency whenever their actions "may affect an endangered or threatened species."[45] The "may affect" provision is determined by a biological assessment (BA).[46] If the BA yields an affirmative answer, then formal consultation is triggered.[47] Formal consultation requires the issuance of a biological opinion (BO) by the consulting agency[48] determining whether the action is likely to jeopardize the listed species and describing, if necessary, reasonable and prudent alternatives that will avoid a likelihood of jeopardy.[49] If the agency proposing the action determines in the BA that an action is "not likely to adversely affect" the species, however, it may undertake informal consultation.[50] The consulting agency must then issue a written concurrence in the "no jeopardy determination" or may suggest modifications that the acting agency could take to avoid the likelihood of adverse effects to the listed species.[51]

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40 *See id.* § 1536.

41 *Id.* § 1536 (a)(2).

42 *See id.* §§ 1538(a), 1532(13).

43 *See id.* § 1538(a).

44 *Compare id.* § 1536(a)(1) *with id.* § 1538(a)(1) ("with respect to any endangered species of fish or wildlife").

45 *Id.* § 1536(a)(2); *see* 50 C.F.R. § 402.14(a) (2013).

46 16 U.S.C. § 1536(a)(3); *see* Harold S. Shepherd, *The Future of Livestock and the Endangered Species Act*, 21 J. ENVTL. L. & LITIG. 383, 392–94 (2007) (describing the "may affect" determination as the biological assessment).

47 50 C.F.R. § 402.14 (2013).

48 16 U.S.C. § 1536 states:

> The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this chapter. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 1533 of this title.

Thus, under Section 7, the consulting agency is either the National Marine Fisheries Service or the United States Fish and Wildlife Service, depending on the species. *See* 16 U.S.C. § 1532(15).

49 *See* 16 U.S.C. § 1536(b)(3)(A) (2013).

50 *See* 50 C.F.R. § 402.13(a) (2013).

51 *See id.* §§ 402.13(b), 404.14(b).

There are exceptions to Sections 7 and 9. If an agency action fails to meet the requirements of Section 7(a)(2), the action agency may apply for an exemption from the Endangered Species Committee, also known as the "God Squad."[52] In practice, this exemption is rarely invoked.[53] Addressed in Section 10 of the ESA, Section 9's exceptions are another story.[54] Section 10 allows the Service to issue "take permits" for several reasons, including scientific research, subsistence by natives, experimental populations, and undue economic hardship, but the most frequently issued exceptions are known as "incidental take permits" (ITPs).[55] ITPs allow takes that are "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."[56] ITPs must be accompanied by a Habitat Conservation Plan (HCP) outlining: (1) "the impact which will likely result from [the] taking"; (2) the "steps the applicant will take to minimize and mitigate such impacts, and the funding . . . available to implement such steps"; (3) alternative actions that were considered; and (4) "such other measures that the Secretary may require."[57] The differences between the responsibilities imposed, and on whom, between Section 7 and Section 9 impact how the ESA interacts with water management regimes throughout the arid West.

C. WATER MANAGEMENT AND SECTION 7: THE KLAMATH BASIN

The *Klamath* litigation was brought on by circumstances not unlike those that led to the *EAA* and *TAP* cases. 2001 brought one of the worst droughts in the recorded history of the Klamath River basin, but the waters of the Klamath River basin were over-appropriated long before 2001.[58] A number of wet years in the 1990s only prevented the issue from coming to a head sooner.[59] Over-appropriation and irrigation use of basin water led to a dramatic decrease in river flow from historic levels.[60] In an effort to obtain necessary flows to rebuild fisheries, the Klamath Tribes joined the United States in a 1975 suit to obtain a declaration of their water rights in the area of their former reservation.[61] In response, the state of Oregon began an adjudication of the water rights in the Klamath Basin.[62] The district court in *Adair* "determined the priority of water rights" for the Tribes but refused to quantify these rights—leaving that to Oregon's Klamath Basin Adjudication.[63] However, because the state "refused to manage water either in favor of,

52 *See* 16 U.S.C. § 1536(e) (2013).
53 *See generally* STANFORD ENVTL. L. SOC'Y, THE ENDANGERED SPECIES ACT 101–102 (2001).
54 *See* 16 U.S.C. § 1539 (2013).
55 *See id.* § 1539(a)–(b).
56 *Id.* § 1539(a)(1)(B).
57 *Id.* § 1539(a)(2)(A); *see id.* § 1532 (defines "Secretary" as either the Secretary of the Interior or Secretary of Commerce or Secretary of Agriculture, depending on program responsibilities).
58 Reed D. Benson, *Giving Suckers (and Salmon) an Even Break: Klamath Basin Water and the Endangered Species Act*, 15 TUL. ENVTL. L.J. 197, 214 (2002).
59 *Id.* at 221.
60 *Id.* at 222.
61 United States v. Adair, 723 F.2d 1394, 1398 (9th Cir. 1983).
62 Benson, *supra* note 58, at 214.
63 *Adair*, 723 F.2d at 1399.

or against, a pending claim" during adjudication, the water rights of long-time users were "effectively favor[ed]" over those of the Tribes.[64]

Continued over-appropriation led to a crash in the basin's most significant fisheries by the mid-1980s.[65] ESA protections further complicated the picture with the listing of sucker fish and a species of salmon in the mid- to late-nineties.[66] Because the Klamath Project was operated by the U.S. Bureau of Reclamation (USBR), a federal agency, the salmon and suckers' listing meant the USBR's operation of the Klamath Project was now subject to the stringent requirements of Section 7 of the ESA.[67] Accordingly, the USBR began issuing BOs for operations of the project on a yearly basis.[68] The mandates of the ESA meant that, when there was less water, irrigation deliveries would have to be reduced to maintain levels sustainable for the listed species.[69] The 1997 BO sparked the first lawsuit challenging the USBR's shifted priorities.[70] The court, however, rejected the irrigators' claims, concluding that "plaintiffs' rights to water in the basin . . . are subservient to . . . subsequent legislative enactments by Congress, such as the Endangered Species Act."[71]

A dry season in 2000 prompted the next suit, but again plaintiff-irrigators' arguments were rebuffed by the courts in favor of the mandates of the ESA.[72] The weather continued to offer no respite to the competing needs of the Klamath Basin, and in 2001, the situation boiled over. On April 3, 2001, finding that the USBR had violated the procedural mandates of the ESA, the District Court for the Northern District of California issued an injunction preventing the USBR from delivering any irrigation water until it completed Section 7 consultation with the National Marine Fisheries Service (NMFS).[73] The injunction required the USBR to provide specific flows to protect salmon before delivering any water to irrigators.[74] Three days after the injunction was issued, the USBR announced the 2001 operations plan, which severely curtailed some users but left most irrigators with no water from the project for the year.[75] In response, the irrigators sued to block the plan.[76] Again, relying heavily on the ESA's mandates for species protection, the court denied the plaintiffs' request for relief.[77] The *Klamath* litiga-

64 Benson, *supra* note 58, at 215–16.
65 *Id.* at 217.
66 *Id.*
67 *See id.* at 218–20; 16 U.S.C. § 1536(a)(2) (2013).
68 *See* Benson, *supra* note 58, at 218–20; 16 U.S.C. § 1536(a)(2) (2013).
69 *See* Benson, *supra* note 58, at 220–21.
70 *See* Klamath Water Users Ass'n v. Patterson, 15 F. Supp. 2d 990, 993 (D. Or. 1998), *aff'd* 204 F.2d 1206 (9th Cir. 1999).
71 *Klamath Water Users Ass'n*, 15 F. Supp. at 996 (citing O'Neill v. United States, 50 F.3d 677, 680–81 (9th Cir. 1995)).
72 *See* Benson, *supra* note 58, at 222 (citing Langell Valley Irrigation Dist. v. Babbitt, No. 00–6265–HO, slip op. at *3-6 (D. Or. Aug. 31, 2000)).
73 *See* Pac. Coast Fed'n of Fishermen's Ass'ns v. U.S. Bureau of Reclamation, 138 F. Supp. 2d 1228, 1242–47 (N.D. Cal. 2001).
74 *Id.* at 1248–50.
75 Benson, *supra* note 58, at 225 (citing U.S. Bureau of Reclamation, Klamath Project 2001 Operations Plan 3 (Apr. 6, 2001)).
76 *See* Kandra v. United States, 145 F. Supp. 2d 1192, 1195 (D. Or. 2001).
77 *See id.* at 1201.

tion has made clear that, in the case of federal water management, the nondiscretionary duties of the federal government under Section 7 of the ESA have serious teeth: "the *Kandra* decision clearly indicates that [federal agencies] must put ESA compliance first. [E]SA obligations take priority over the primary missions of federal agencies."[78]

D. WATER MANAGEMENT AND SECTION 9: THE EDWARDS AQUIFER AUTHORITY

As with the Klamath Basin, management of Edwards Aquifer water was a divisive and controversial issue for decades. Increasing demands from competing uses exerted pressure on water supplies, and as in the Klamath Basin, a severe drought and the presence of listed species finally brought the issue to a head.[79] After "[d]ecades of disagreements among local, regional, state, and federal governments" over the management of the Edwards Aquifer, the issue was at an impasse.[80] Then, in 1991, the Sierra Club brought suit to protect endangered species dependent on aquifer spring flows.[81] The suit alleged that the Secretary of the Interior had violated Section 9 by failing to implement Section 4 recovery plans that would ensure adequate water levels in the Edwards Aquifer to sustain the flow of the Comal and San Marcos Springs, the primary aquatic habitats of one threatened and seven endangered species.[82] The plaintiffs sought to enjoin the defendants to restrict pumping from the Edwards Aquifer under certain conditions and to develop and implement recovery plans for the listed species.[83] On February 1, 1993, Judge Lucius Bunton ruled in favor of the plaintiffs, ordering federal defendants to set minimum spring flow levels within forty-five days of the order, file monthly reports on the status of these efforts, and provide notice of the minimum spring flows to all federal agencies.[84] The district court subsequently set a deadline for the State to prepare a plan that would protect minimum spring flows and aquifer levels, warning the legislature it was the "last chance for adoption of an adequate state plan before the 'blunt axes' of Federal intervention have to be dropped."[85]

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78 Benson, *supra* note 58, at 233 (citing *Kandra*, 145 F. Supp. at 1207 (quoting Tenn. Valley Auth. v. Hill, 437 U.S. 153, 185 (1978))).

79 Todd H. Votteler, *The Little Fish that Roared: The Endangered Species Act, State Groundwater Law, and Private Property Rights Collide Over the Texas Edwards Aquifer*, 28 ENVTL. L. 845, 846 (1998).

80 *Id.*

81 *Id.*; *see also* Sierra Club v. Lujan, No. MO–91–CA–69, 1993 WL 151353, *1 (W.D. Tex. Feb. 1, 1993) (case name subsequently changed to *Sierra Club v. Babbitt* when U.S. Dept. of Interior Security Babbitt replaced Secretary Lujan).

82 *Lujan*, 1993 WL 15135 at *9–10, *33. The San Marcos salamander (*Eurycea nana*) is listed as threatened. The San Marcos gambusia (*Gambusia georgei*), Texas wild-rice (*Zizania texana*), fountain darter (*Etheostoma fonticola*), Texas blind salamander (*Typhlomolge rathbuni*), Comal Springs riffle beetle (*Heterelmis comalensis*), Comal Springs dryopid beetle (*Stygoparnus comalensis*), and Peck's cave amphipod (*Stygobromus pecki*) are listed as endangered. The fountain darter and Comal Springs riffle beetle are the only species listed at both Comal Springs and San Marcos Springs.

83 *Id.* at *11, *30.

84 *Id.* at *28, *32–33 (on February 14, 1996, the USFWS finished the recovery plan, bringing the Sierra Club's suit against the U.S. Dept. of Interior to an end).

85 *Lujan*, 1993 WL 15135, at *29 (amending findings of fact and conclusions of law).

On May 30, 1993, the legislature heeded the judge's warning and passed S.B. 1477, one day before the "blunt axes of Federal intervention" were set to drop.[86] S.B. 1477 established the Edwards Aquifer Authority (EAA), a conservation and reclamation district created under the authority of the Conservation Amendment of the Texas Constitution.[87] The EAA was given the power and authority to manage the Aquifer and regulate withdrawals.[88] Under the Act, the EAA was also tasked with a non-discretionary duty to consider endangered species in managing the aquifer.[89] Because the EAA could limit groundwater withdrawals—which were largely considered vested property rights at the time[90]—the Act was contentious, and its passage was heralded by a lawsuit challenging its constitutionality almost immediately.[91] On October 27, 1995, the challenge proved successful when the state district court ruled that S.B. 1477 was unconstitutional.[92]

In 1996, while the EAA was still mired in legal woes, drought returned to the region and spring flows in the Comal and San Marcos Springs dropped to levels below jeopardy.[93] The Sierra Club responded by filing a second ESA suit in Judge Bunton's court on June 10, 1996, this time alleging that pumpers caused prohibited takes of endangered fountain darters by causing spring flow declines.[94] Finding for plaintiffs, on July 2, 1996, Judge Bunton ordered the United States Department of Agriculture (USDA) to develop a species conservation plan and a month later appointed a Special Master tasked with developing a new water conservation plan.[95] On August 23, 1996, after a public comment period, the 1996 Emergency Withdrawal Reduction Plan for the Edwards Aquifer was revised and adopted by the court.[96] Pursuant to the plan, Judge Bunton declared a water emergency and issued an order setting a date for the plan's activation.[97] Defend-

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86 Edwards Aquifer Authority Act, Tex. S.B. 1477, 73rd Leg., R.S., ch. 626, 1993 Tex. Gen. Laws 699 [hereinafter EAAA].

87 TEX. CONST. art. XVI, § 59.

88 EAAA, § 1.08.

89 *Id.* § 1.14(a)(6).

90 Ownership of groundwater in place was presumed by many at the time but not formally announced until *Edwards Aquifer Auth. v. Day*, 369 S.W.3d 814, 817 (Tex. 2012).

91 The Act was originally passed on May 30, 1993, and scheduled to take effect September 1, 1993. However, it did not become effective then because the United States Department of Justice refused to give administrative preclearance to the Act under Section 5 of the Voting Rights Act due to the appointment method of selecting the board of directors for the Authority. The Legislature responded by amending the Act in May 1995, changing the board's selection method from appointive to elective. *See* Tex. H.B. 3189, Act of May 29, 1995, 74th Leg., R.S., ch. 261, 1995 Tex. Gen. Laws 2505. In August 1995, the Department of Justice pre-cleared the amended Act, which was then scheduled to become effective August 28, 1995. *Id.* However, six days before the effective date, Plaintiffs brought the *Barshop* lawsuit to restrain the administration and enforcement of the Act. Barshop v. Medina Cnty. Underground Water Conservation Dist., 925 S.W.2d 618, 625 (Tex. 1996).

92 *Barshop*, 925 S.W.2d at 625.

93 Votteler, *supra* note 79, at 859.

94 *Id.*; Sierra Club v. City of San Antonio, 112 F.3d 789, 791 (5th Cir. 1997).

95 Votteler, *supra* note 79, at 859.

96 *Id.*

97 *Id.*

ants appealed, and the Fifth Circuit granted defendant's motion for a stay pending appeal.[98] While the Sierra Club suit had been progressing, however, an undivided Texas Supreme Court reversed the state district court's ruling that S.B. 1477 was unconstitutional.[99] In light of this ruling, the Fifth Circuit then vacated Judge Bunton's order, finding that, under *Burford v. Sun Oil*, 319 U.S. 315 (1943), the court should have abstained from acting on the matter.[100] While ultimately unsuccessful, the second Sierra Club suit foreshadowed many of the same arguments, and perhaps the necessary solution, to the *TAP* case.

III. WHOOPING CRANES AND WATER MANAGEMENT: THE "TAP" CASE

A. THE CASE

In the winter of 2008–2009, drought coupled with permitted water withdrawals led to reduced freshwater inflows into the wintering grounds of the only viable wintering grounds of the wild population of whooping cranes in the world.[101] According to TAP, the reduced inflows caused the Aransas National Wildlife Refuge and surrounding crane habitat in the San Antonio bay to experience hyper-saline conditions that led to a decline of the cranes' primary food sources: blue crabs and wolfberries.[102] As a result, plaintiffs claimed that twenty-three whooping cranes died that year and an additional thirty-four failed to return the following winter.[103] In alarm over the high number crane mortalities, a group of local business owners, environmentalists, and bird enthusiasts banded together to form a nonprofit organization dedicated to addressing the problem: "The Aransas Project," also known as "TAP."[104] The San Marcos River Foundation had originally sought a water permit to ensure that a sufficient amount of water would remain in the San Antonio and Guadalupe river systems for the benefit of the Guadalupe/San Antonio bay and estuary system.[105] After this effort was unsuccessful, on March 10, 2010, TAP filed suit against the TCEQ alleging it had violated Section 9 of the ESA by failing to ensure adequate flows, thereby causing an unlawful take of cranes.[106] The plaintiffs sought declaratory and injunctive relief to ensure sufficient water for the cranes to prevent future takes.[107]

TAP assembled a world-class team of expert scientists and statisticians to make their case.[108] The team provided data, modeling, and statistical analyses to support its claim

98 *Id.*
99 *Id.*; Barshop v. Medina Cnty. Underground Water Conservation Dist., 925 S.W.2d 618, 623 (Tex. 1996).
100 Sierra Club v. City of San Antonio, 112 F.3d 789, 798 (5th Cir. 1997).
101 Aransas Project v. Shaw, 835 F. Supp. 2d 251, 255 (S.D. Tex. 2011).
102 *Id.* at 256.
103 Aransas Project v. Shaw, 930 F. Supp. 2d 716, 724 (S.D. Tex. 2013).
104 *Id.*
105 Tex. Comm'n Envtl. Quality v. San Marcos River Found., 267 S.W.3d 356, 360 (Tex.App.-Corpus Christi 2008, pet. denied); *Aransas Project*, 930 F. Supp. 2d at 725.
106 *Id.*
107 *Id.* at 726.
108 *Id.* at 755.

that water withdrawals permitted by the TCEQ had been a proximate cause of the death of the twenty-three cranes in contravention of the ESA.[109] This included a model titled PX-92, which illustrated what actual salinities in the bay would have been if there were no permitted diversions anywhere in the basin and all the river water flowed into the San Antonio Bay.[110] The defendants responded with their own scientific experts, but district court Judge Jack was unconvinced.[111] As a result, the Judge Jack adopted TAP's findings of fact in their entirety, issued an injunction against the TCEQ's approval of any further water rights in the river basins at issue, and ordered the TCEQ to apply for an incidental take permit (ITP) and begin development of a habitat conservation plan (HCP) pursuant to Section 10 of the ESA.[112] The defendants appealed the case to the Fifth Circuit, and oral arguments were heard on August 8, 2013.[113] There were several points of contention in the case that provided the Fifth Circuit with grounds for reversal and remand—all with important, but varying, implications for the future of state water management and ESA claims.

B. Grounds for the Fifth Circuit's Decision

There were four main arguments on which the TCEQ and its allies relied for reversal: (1) that the TCEQ lacks regulatory authority to modify water rights; (2) that causation is lacking, both because regulators cannot be held liable under the ESA for the acts of those it regulates and because proximate causation was not demonstrated by TAP; (3) that *Burford* abstention should apply because S.B. 3 provides a comprehensive state regulatory scheme for the management of state water and endangered species' needs; and (4) that the remedy ordered by the trial court was inappropriate.[114] During oral argument, the panel peppered counsel with questions about causation and *Burford*, leading some involved in the case to correctly predict that the final opinion would be grounded in one of these two arguments.[115]

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109 *See id.* at 730–31. The ESA only requires a showing the activity constituting a take was an actual, or "a" cause of the take, not "the" proximate cause, thus recognizing there can be convergent sources of harm. *See* Loggerhead Turtle v. Cnty. Council of Volusia Cnty., 148 F.3d 1231, 1251 n. 23 (11th Cir. 1998) (citing Cox v. Adm'r United States Steel & Carnegie, 17 F.3d 1386, 1399 (11th Cir. 1994) (holding that "[a] proximate cause is not . . . the same thing as a sole cause."); *see also* Babbitt v. Sweet Home Chapter of Cnmtys. for a Great Or., 515 U.S. 687, 697 (U.S. 1995).

110 *Aransas Project*, 930 F. Supp. 2d at 746.

111 *Compare id.* at 768 ("Dr. Slack admitted that he had no observational basis for this statement, he had not reviewed literature on cranes and freshwater, and that he 'just made it up.'") and *id.* at 762 ("Dr. Conroy did not base this opinion on any personal observation of Mr. Stehn's methods, and he admitted that he has no experience with Whooping Cranes."), with *id.* at 790 n. 67, ("Dr. Archibald . . . 'danced' with Tex for six years [in an effort to induce her to lay an egg and reproduce].").

112 *Id.* at 775–89.

113 Unofficial Transcript of Oral Argument at 1, Aransas Project v. Shaw (2013) (No. 13–40317), *available at http://thearansasproject.org/wp-content/uploads/2009/11/Transcript-TAP-v-Shaw-Oral-Argument-8-8-13.pdf*.

114 *See generally Aransas Project*, 930 F. Supp. 2d. 716.

115 Oral Argument at 14:55, Aransas v. Shaw, Docket No. 13-40317, *available at* http://www.ca5.uscourts.gov/OralArgRecordings/13/13-40317_8-8-2013.wma.

1. REGULATORY AUTHORITY

The TCEQ alleged that it could not be held liable for the acts of third-party water users because they lack the authority to control the acts of these third parties after water rights have been granted.[116] The TCEQ based this view on the argument that water rights become vested property rights after a permit has been granted and a rights holder puts the water to beneficial use.[117] Once vested, water rights cannot be retroactively amended to add environmental protections.[118] The district court summarily rejected this claim, citing several statutory provisions for support.[119] The court pointed to the fact that the legislature granted the TCEQ "general jurisdiction" over Texas water and authority to implement both Texas and federal law.[120] The court also noted that the Texas Water Code states that the surface waters are the property of the state, held in trust for the public, and that no one may "divert, store or impound water" without authorization.[121] The court further pointed out that the Texas Water Code grants the TCEQ authority to cancel water rights for non-use.[122] Additionally, in the adopted findings of fact, the district court acknowledged that, in 2011, the legislature enacted Section 11.053 of the Texas Water Code, authorizing the Commission to suspend or curtail senior water rights in favor of preferred junior uses in time of drought.[123] The court then cited several situations in which the TCEQ reallocated water to conclude that the Com-

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116 *Aransas Project*, 930 F. Supp. 2d at 729; Brief for TWCA as Amici Curiae Supporting Appellants, *supra* note 21, at 3–20; Brief for Appellant Guadalupe-Blanco River Auth. (GBRA) et al. at 57–59, Aransas Project v. Shaw, 756 F.3d 801 (5th Cir. 2014), *available at* http://thearansasproject.org/wp-content/uploads/2009/11/GBRA_Brief.pdf.

117 Brief for Appellant Tex. Comm'n Envtl. Quality (TCEQ) at 42, Aransas Project v. Shaw, 756 F.3d 801 (5th Cir. 2014), *available at* http://thearansasproject.org/wp-content/uploads/2009/11/TCEQ_Brief.pdf.

118 *Id*.

119 *Aransas Project*, 930 F. Supp. 2d at 738.

120 *Id*.

121 *Id*. at 738 (citing TEX. WATER CODE §§ 11.081, 11.121).

122 *See id*. at 743, 781, 785, 788.

123 In accordance with TEX. WATER CODE § 11.053, TCEQ promulgated 30 TEX. ADMIN. CODE §§ 36.1–36.8 (the "Drought Curtailment Rule"). Pursuant to the rule, the TCEQ suspended several senior rights holders on the Brazos River a few months later to satisfy a senior call. Affected senior rights holders subsequently filed suit alleging that the Drought Rule was invalid because it contravened the prior appropriation system. Tex. Farm Bureau v. Tex. Comm'n Envtl. Quality, No. D1–GN–12–003937, 2012 WL 6221004 (Tex. Dist. Dec. 14, 2013). On June 6, 2013 Judge Scott F. Jenkins issued an order concluding that "the TCEQ Drought Curtailment Rules . . . are invalid and exceed TCEQ's statutory authority because they allow deviation from the priority system and the exemption of water rights for preferred uses from a curtailment or suspension order[.]" On June 13, 2013, TCEQ filed its notice of appeal to the Third Court of Appeals in Austin, Texas. The rule thus appears to be on its way to the Texas Supreme Court where a ruling that it does indeed exceed TCEQ's statutory authority would undercut the district court's determination in *TAP* that TCEQ possesses the authority to alter water rights in contravention of the priority system without compensation after permits have been issued. However, it is worth noting that, in its reading of the statute, the district court also found that threats to whooping cranes could be considered public health and safety emergencies. *Aransas Project*, 930 F. Supp.2d at 741.

mission did indeed possess authority to alter water rights at a later date.[124] The watermaster program, whereby watermasters can grant, deny, or withhold water from permit holders depending on river conditions, was cited as one such example of the TCEQ's power to manage state water even within the bounds of the prior appropriation system.[125] The court also pointed out that, in 2008–2009, the TCEQ had authorized the City of Kerrville, a junior right holder, to withdraw water in the interest of public health.[126]

On appeal, the TWCA argued in its amicus curiae that the TCEQ may only modify water rights under two limited circumstances: (1) when the terms and conditions of existing water rights provide for modification; and (2) when permittees have applied to the TCEQ for certain types of amendments.[127] TAP responded that all water rights are subject to continuing supervision by the TCEQ and noted, "courts routinely reject arguments predicated on a state official's purported lack of authority to comply with federal law."[128] As important as the issues these arguments raise for the future of water management, however, the Fifth Circuit only addressed them in a footnote of its opinion reversing the district court.[129] However, in that note the court appeared to agree with TWCA that the TCEQ has very limited authority to modify existing rights.[130]

2. Causation

Causation is a contentious issue in ESA litigation. Section 9 of the ESA prohibits "takes" of all listed endangered species.[131] A "take" is defined as any action to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" a protected species.[132] The terms "harm" and "harass" within the definition of take are likewise broadly defined. "Harm" includes "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."[133] "Harass" is defined as "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering."[134] As reflected by the broad sweep of these definitions, Congress intended to define take in the "broadest possible manner to include every conceivable way" a person could harm or kill wildlife.[135] Given this intent and the language employed in the definitions, the Supreme Court has concluded that both direct

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124 *Aransas Project*, 930 F. Supp.2d at 742–46.
125 *Id*.
126 *Id*. at 741.
127 Brief for TWCA as Amici Curiae Supporting Appellants, *supra* note 21, at 8–15.
128 Brief for Appellee at 99, Aransas Project v. Shaw, 756 F.3d 801 (5th Cir. 2014), *available at* http://thearansasproject.org/wp-content/uploads/2009/11/TAP_Brief_5-31-2013.pdf.
129 Aransas Project v. Shaw, 756 F.3d 801 (5th Cir. 2014).
130 *Id*. at 820, n. 16
131 16 U.S.C. § 1531(a)(B) (2013); 50 C.F.R. § 17.31 (2013); 55 Fed. Reg. 26,114, 26,122 (June 26, 1990).
132 16 U.S.C. 1532(19) (2013).
133 50 C.F.R. § 17.3 (2013).
134 *Id*.
135 S. Rep. No. 307, 93rd Cong., 1st Sess. 1, reprinted in 1973 U.S. Code Cong. & Admin. News 2989–90.

and indirect actions fall within the purview of the definition of "take."[136] The prohibition on "takes" applies both to actions and failure to act by all "persons," including any "officer, employee, agent, department, or instrumentality of . . . any State."[137]

a. PROXIMATE CAUSE

The Supreme Court has made it clear that the ordinary requirements for proximate cause apply to takes under the ESA, and thus but-for causation is not sufficient.[138] Consequently, on appeal, the TCEQ and its allies argued that the district court abused its discretion by finding proximate cause based on a multi-step causal sequence that was too attenuated and did not account for intervening causes.[139] Defendants argued that, even if the TCEQ's regulatory actions did contribute to a take, the Commission's actions were so far attenuated from the ultimate take they could not be considered a proximate cause.[140] Because there were so many discrete steps involved, defendant-intervenor Guadalupe Blanco River Authority (GBRA) argued that the TCEQ could not have reasonably foreseen that its actions would lead to takes.[141] GBRA further argued that other factors such as drought, tidal variations, and commercial crabbing intervened to break the chain of causation because the whooping cranes would not have sustained harm in their absence.[142] TAP responded that a proximate cause may be indirect and need not be the sole cause.[143] TAP further noted that the mere fact that the TCEQ's regulatory actions were part of a causal sequence does not prevent them from being a proximate cause.[144] TAP also pointed out that defendants' framing of the sequence as multi-step was inapposite because, in this case, the sequence could also be framed as single-step: the TCEQ's acts adversely affected whooping crane habitat.[145] Intervening causes also do not absolve the TCEQ because the effects of the TCEQ's actions must have been merely foreseeable. In this case, TAP argued, the TCEQ not only foresaw the problem but actually "anticipated" it because the Executive Director of the Texas Parks and Wildlife Department concurred in the findings of the International Whooping Crane Recovery Plan, which stated that inflows were already insufficient and continued lack of inflows would have "'significant adverse impacts'" on cranes.[146]

Because of the complexity of the causation questions in the case, it is no surprise that causation and foreseeability were the focus of the panel's questions during oral argument. As one witness noted:

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136 *See* Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687, 697–98 (U.S. 1995).

137 16 U.S.C. § 1532(13) (2013).

138 *Sweet Home*, 515 U.S. at 700.

139 Brief for Appellant TCEQ, *supra* note 117, at 37–41; *see also* Brief for Appellant GBRA et al., *supra* note 116, at 40–57.

140 Brief for Appellant TCEQ, *supra* note 117, at 37–41; Brief for Appellant GBRA et al., *supra* note 116, at 40–41.

141 Brief for Appellant GBRA et al., *supra* note 116, at 38.

142 *Id.* at 39.

143 Brief for Appellee, *supra* note 128, at 60.

144 *Id.* at 98.

145 *Id.*

146 *Id.* at 94–95.

> [Judges] Jones and Garza were particularly troubled by the causation issue, because of the fact that Texas was experiencing drought during the winter of 2007–2008. (At one point, Jones wondered aloud why none of the parties had cited *Palsgraf* in its brief). [TAP counsel] managed to point out that the plaintiffs introduced modeling data during the trial that showed that water withdrawals did indeed cause take (the data showed that under drought conditions, had there been no withdrawals by permit holders, the salinity levels in the bay would have been low enough to support the cranes' food supply). The panel seemed unconvinced[.][147]

In light of the amount of time the panel devoted to questions on causation and foreseeability, it is no surprise that the Fifth Circuit ultimately based its reversal on these grounds.[148] Before turning to causation, however, the court concluded that the district court's finding that twenty-three cranes died by relying on Dr. Stehn's testimony was not clear error.[149] The court also noted that the exclusion of a Fish and Wildlife Service survey critical of Stehn's aerial survey methodology was error because the district court improperly acted as trier-of-fact instead of gatekeeper by weighing and excluding evidence.[150] However, the court noted the error was harmless because the court had carefully considered the survey, and the court's ultimate factual findings were unaffected by the exclusion.[151]

Turning to foreseeability and proximate causation, the court seized on a statement from the Supreme Court's holding in *Sweet Home* that "the ESA prohibits 'takes' so long as they are 'foreseeable rather than merely accidental.'"[152] The court noted that the Supreme Court's jurisprudence supported the proposition that, even when there is cause-in-fact, the link between cause and effect sometimes is too tenuous to impose liability.[153] The court concluded that applying these considerations to the ESA means that liability cannot be premised on the "butterfly effect" or on "remote actors in a vast and complex ecosystem."[154] The court noted that the district court had only cited to *Sweet Home* twice in the 124-page opinion and stated that "nowhere does the court explain why the remote connection between water licensing, decisions to draw river water by hundreds of users, whooping crane habitat, and crane deaths that occurred during a year of extraordinary drought compels ESA liability."[155] Because the court's "ambiguous conclusion cannot be sustained," the Fifth Circuit held that the district court applied an incorrect test

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147 E-mail from Professor Melinda Taylor, Senior Lecturer and Executive Director, Center for Global Energy, International Arbitration and Environmental Law, to Hope Babcock et al. (Aug. 12, 2013) (on file with Author).

148 *See generally* Aransas Project v. Shaw, 756 F.3d 801 (5th Cir. 2014).

149 *Id.* at 815.

150 *Id.* at 816.

151 *Id.*

152 *Id.* at 817 (quoting Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687, 700 (1995)).

153 *Id.* at 817-18 (citing Exxon Co., U.S.A. v. Sofec, Inc., 517 U.S. 830, 838 (1996); Paroline v. United States, 134 S.Ct. 1710, 1719 (2014)).

154 *Id.* at 818.

155 *Id.*

for causation and thus was not bound by the district court's factual findings.[156] Consequently, the court began a review of the district court's factual findings and concluded that there was a long chain of causation at issue in *TAP*, "every link of [which] depends on modeling and estimation."[157] As a result, the district court had "found but-for causation at best."[158] Reviewing the factual record without any deference to the district court's findings, the court reached a different conclusion on the probative value of each major piece of evidence adduced at trial.[159]

The court also cited the number of contingencies affecting the chain of causation as further evidence of the lack of foreseeability or a direct connection between the TCEQ permitting and crane deaths.[160] The court concluded that variability of water use, the TCEQ's lack of control over independent users' decisions on use, the "unpredictable and uncontrollable" forces of nature, and the availability of cranes' food sources combined "[wa]s the essence of unforeseeability."[161]

b. REGULATOR LIABILITY

The First, Eighth, and Eleventh Circuits have held that regulatory acts of governmental entities can constitute a take when their regulatory programs approve actions by third parties that contribute to causing a take.[162] In light of *Sweet Home's* clear mandate that Section 9 encompasses indirectly caused harm, in *Strahan* (the leading case on regulator liability under the ESA), the First Circuit rejected the defendant's argument that the acts of third parties were an intervening or superseding cause that broke the chain of causation, holding instead that proximate causation exists where a defendant government agency authorizes an activity that causes a take.[163] In line with the First Circuit's *Strahan* decision, the district court found that the TCEQ caused whooping crane takes by managing the state's surface water system in a way that allowed water permittees to divert water necessary to maintain healthy whooping crane habitat, thereby causing increased bay salinities and a decrease in the cranes' main food sources, which resulted in crane deaths.[164]

Relying on three hypotheticals to criticize *Strahan* and its progeny, the TCEQ and the GBRA argued that a regulator is not responsible for the actions of those it regulates

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156 *Id.* at 818-19

157 *Id.* at 820.

158 *Id.*

159 *See id.* at 820-21.

160 *Id.* at 822.

161 *Id.* at 823.

162 *See* Strahan v. Coxe, 127 F.3d 155, 158, 163 (1st Cir. 1997) (state agency caused takings of the endangered right whale because it "licensed commercial fishing operations to use gillnets and lobster pots in specifically the manner that is likely to result in violation of [the ESA.]"); Defenders of Wildlife v. Adm'r, Envtl. Prot. Agency, 882 F.2d 1294, 1300–01 (8th Cir. 1989) (federal agency caused takes of the endangered black-footed ferret through its "decision to register pesticides" even though other persons actually distributed or used the pesticides); *see* Loggerhead Turtle v. Cnty. Council of Volusia Cnty., 148 F.3d 1231, 1247–53 (11th Cir. 1998)

163 *Strahan*, 939 F. Supp. at 164.

164 Aransas Project v. Shaw, 930 F. Supp. 2d 716, 731 (S.D. Tex. 2013).

absent direct involvement in, or solicitation of, the take.[165] The TCEQ first compared water permitting to the issuance of a driver's license, arguing that the Department of Motor Vehicles (DMV) would not be liable if a driver with a DMV-issued license killed an endangered species while driving on state-owned roads.[166] Second, comparing water rights to state-issued hunting licenses, the TCEQ argued that, if a hunter shoots an endangered species using a state-licensed gun, the state agency that issued the license is not liable.[167] Third, relying on a comparison of the ESA with the Controlled Substances Act, the TCEQ argued that, when residents of states that have de-criminalized marijuana consume marijuana, they violate federal drug laws, but the states themselves do not.[168] In putting forth these hypotheticals the TCEQ sought to distinguish licensing from solicitation, arguing that without the direct involvement of the state to conspire to commit a take, mere issuance of state water rights does not subject the TCEQ to liability under the ESA.[169] To distinguish these hypotheticals from the precedential value of the *Strahan* line of cases, TAP responded that the post-*Strahan* cases announce a general rule for determining regulator liability and that all these conditions were met in the *TAP* case: (1) whether the governmental agency owns the natural resource; (2) whether the agency had a permitting scheme over the natural resource; and (3) whether the agency had regulations governing the resource.[170]

Given that a finding in favor of the defendants on this ground would have created a circuit split, and because there were several other potential grounds on which to decide the case, it is no surprise that the Fifth Circuit sidestepped the question of regulator liability in its final opinion.[171] Rather than directly confronting the question, and with little elaboration, the court distinguished the other circuit court cases stating, "[i]n sharp contrast to *Strahan* and these other cases, the district court's untethered linking of governmental licensing with ESA takes elides proximate cause rather than applying it."[172] In reaching its conclusion that *Strahan* and *Loggerhead* were inapposite, the Fifth Circuit appears to have relied on a statement from *Strahan* stating that "a governmental third party pursuant to whose authority an actor *directly* exacts a taking of an endangered

165 Brief for Appellant TCEQ, *supra* note 117, at 20.
166 *Id.* at 33.
167 *Id.* at 15.
168 *Id.* at 17.
169 *Id.* at 20–22.
170 Brief for Appellee, *supra* note 128, at 31.
171 During oral argument, counsel for defendants conceded that their argument that *Strahan* was wrongly decided was not the strongest ground for reversal, instead focusing on *Burford* abstention and causation. Oral Argument at 1:03, Aransas v. Shaw, Docket No. 13-40317, *available at* http://www.ca5.sucourts.gov/OralArgRecordings/13/13-40317_8-8-2013.wma. "[During oral argument] the panel did not seem inclined to create a split in the circuits by issuing a ruling based on legal reasoning contrary to the First Circuit's vicarious liability holding in *Strahan*. Every time the State or GBRA tried to steer the argument toward a discussion of *Strahan* and drivers' licenses, [Judges] Smith and Jones steered it back to a discussion of proximate cause and/or foreseeability." E-mail from Professor Melinda Taylor, Senior Lecturer and Executive Director, Center for Global Energy, International Arbitration and Environmental Law, to Hope Babcock et al. (Aug. 12, 2013) (on file with Author).
172 Aransas Project v. Shaw, 756 F.3d 801, 819 (5th Cir. 2014).

species may be deemed to have violated . . . the ESA."[173] The court found that, unlike those cases, "there is a long chain of causation . . . between the TCEQ's issuance of permits to take water from the rivers and cranes' mortality."[174] The court thereby successfully shifted the focus back to foreseeability and proximate cause without creating a circuit split.[175]

3. BURFORD ABSTENTION

Both at trial and on appeal, TAP defendants and allies requested that the court abstain from adjudicating the case pursuant to the Supreme Court's holding in *Burford v. Sun Oil*.[176] In *Burford*, the Supreme Court affirmed the district court's dismissal of a case challenging the Texas Railroad Commission's decision to grant Burford a permit to drill certain oil wells.[177] The Court stated that "a sound respect for the independence of state action requires the federal equity court to stay its hand," when a "unified method for the formation of policy and determination of cases" exists.[178] Known as "*Burford* abstention," the doctrine applies when a complex issue of unsettled state law is better resolved through a state's regulatory scheme than through the federal courts, where conflicts in the interpretation of state law are more likely to occur.[179] However, *Burford* abstention is considered an "extraordinar[y] and narrow exception" to a district court's duty to adjudicate cases within its jurisdiction.[180] Consequently, before applying *Burford* a court considers five factors:

> (1) whether the cause of action arises under federal or state law; (2) whether the case requires inquiry into unsettled issues of state law or into local facts; (3) the importance of the state interest involved; (4) the state's need for coherent policy in that area; and (5) the presence of a special state forum for judicial review.[181]

The district court noted that, while the existence of a complex state administrative process is necessary, it is not a sufficient condition for the application of *Burford* abstention.[182] There must also be "timely and adequate state-court review" available.[183] Two considerations: (1) whether S.B. 3 was a comprehensive regulatory scheme; and (2) whether the issue was capable of being adjudicated in state court, formed the basis of the parties' disagreement in the *TAP* case.[184] The defendants argued that S.B. 3 provides a comprehensive regulatory scheme for water by regulating surface flows, particularly because it addresses a number of environmental issues, including endangered species.[185] But

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173 *Id.* (citing Strahan v. Coxe, 127 F.3d 155, 165 (1st Cir. 1997)).
174 *Id.*
175 *Id.*
176 319 U.S. 315 (1943); Aransas Project v. Shaw, 930 F. Supp. 2d 716 (S.D. Tex. 2013).
177 *Burford*, 319 U.S. at 333–34.
178 *Id.*
179 *Id.*
180 *See* Quackenbush v. Allstate Ins. Co., 517 U.S. 706, 728 (1996).
181 Moore v. State Farm Fire & Cas. Co., 556 F.3d 264, 272 (5th Cir. 2009) (citing Wilson v. Valley Elec. Membership Corp., 8 F.3d 311, 314 (5th Cir. 1993)).
182 Aransas Project v. Shaw, 930 F. Supp. 2d 716, 732 (S.D. Tex. 2013).
183 New Orleans Pub. Serv., Inc. v. Council of City of New Orleans, 491 U.S. 350, 361 (1989).
184 *Aransas Project*, 930 F. Supp. 2d at 731, 733.
185 *Id.* at 733.

unlike the Edwards Aquifer Act, which was the basis for *Burford* abstention in the case defendants relied on for analogy, S.B. 3's considerations for endangered species are more discretionary.[186] As the district court pointed out, "although [S.B. 3] does establish a comprehensive framework for the State of Texas to *determine* the amount of freshwater inflows that need to remain instream to protect the overall health of the State's river system, it makes no attempt to *ensure* that such recommended amounts remain."[187] On appeal, counsel for TAP argued that the *Burford* abstention does not apply because there is no state forum for judicial review.[188] Because S.B. 3 only contains discretionary considerations for endangered species, there is no statutory foundation to argue the state's failure to implement a non-discretionary duty to protect or assist endangered whooping cranes.[189] Consequently, TAP claimed, there was no way to bring a case that would survive a motion to dismiss and, therefore, no way to adjudicate the issue in state court.[190]

On appeal, the Fifth Circuit found that the district court had not abused its discretion by choosing to adjudicate the case.[191] Applying the five *Burford* factors to the case, the court easily conceded the first because the cause of action arose under the federal ESA.[192] Turning to the second, the court distinguished *City of San Antonio*, noting that abstention was not warranted in TAP's case because the state defendants did not argue that they would be forced to violate state law by complying with the injunction.[193] Nor was it necessary for the district court to engage complex issues of state law or weigh state policy decisions to reach its decision.[194] The court also noted that examination of individual water rights or requiring the state to distribute water or not distribute water in a certain fashion was not at issue as it was in *City of San Antonio*.[195]

Examining the third factor, the court conceded that water management "is undoubtedly an important state interest," however, because the whooping crane "is an interstate, and indeed international, species . . . there is also a strong federal interest."[196] Thus, because the species was not entirely intrastate as in *City of San Antonio*, the balancing of state and federal interests weighed in favor of not abstaining.[197] Upon examining the fourth factor, the court concluded that the Texas Water Code is similar to the regulations at issue in *Burford* and *City of San Antonio*.[198] Thus, because "federal intervention could easily upset th[e] delicate balancing of factors that the TCEQ must weigh in implementing the regulatory regime," this factor weighed in favor of abstention.[199] As to the

186 *See* Sierra Club v. City of San Antonio, 112 F.3d 789, 791 (5th Cir. 1997); TEX. WATER CODE ANN. § 11.1471 (West 2013).
187 *Aransas Project*, 930 F. Supp. 2d at 735 (emphasis in original).
188 *See* Brief for Appellee, *supra* note 128, at 46–52.
189 *Id.*
190 *Id.*
191 Aransas Project v. Shaw, 756 F.3d 801, 809 (5th Cir. 2014).
192 *Id.* at 810.
193 *Id.* at 810-11.
194 *Id.* at 811.
195 *Id.* at 811-12.
196 *Id.* at 811.
197 *Id.* at 812.
198 *Id.*
199 *Id.*

final factor, the court stated that although at first blush there appeared to be adequate state-court review under Section 5.351 of the Texas Water Code, there were signs indicating that neither the TCEQ, nor the state courts have the authority to provide the type of relief TAP sought.[200] In concluding that the TCEQ appeared to lack the authority to provide water for the cranes in a drought, the court specifically cited Texas Water Code Section 11.0235(d)(1), which expressly forbids granting water rights solely for environmental needs and Section 11.0235(c), which allows the TCEQ to suspend all permitting related to environmental flows "during emergencies," including drought.[201] Thus, state court review would be the only avenue for redress; however, there would still be no authority the parties could cite to show how the TCEQ could be forced to provide greater freshwater flows.[202]

4. THE REMEDY (ITP AND HCP)

The district court ordered the TCEQ to apply for an incidental take permit pursuant to Section 10 of the ESA and to refrain from issuing new water rights for the San Antonio and Guadalupe rivers.[203] The TCEQ argued this relief was improper because: (1) it provided prospective relief for a harm that has already occurred and is not continuing; (2) it disregarded sovereign immunity; (3) it commandeered Texas's government in violation of the Tenth Amendment; and (4) the district court exceeded its equitable authority under the ESA by ordering the TCEQ to apply for an ITP.[204]

a. PROSPECTIVE RELIEF FOR PAST HARM

The TCEQ argued that the *Ex parte Young* exception to sovereign immunity applies only when a court enjoins an ongoing violation of federal law, but the violation in the *TAP* case has ended because the alleged whooping crane takes occurred in the winter of 2008–2009.[205] While the TCEQ did concede that future water diversions could cause takes, it argued that TAP failed to "'establish a real and immediate threat that [it] will again' suffer similar injury in the future."[206] TAP responded that the harm is ongoing because low freshwater inflows have been shown to cause injury and death in whooping cranes, and the San Antonio and Guadalupe rivers are already over-appropriated.[207] Therefore, if all rights holders divert their full permitted amounts or if drought continues, the harm will continue—especially because the TCEQ has no process in place to guarantee that future water rights do not harm endangered species.[208]

In its opinion, the Fifth Circuit explained that, because the district court erred in three ways in granting injunctive relief, even if the state defendants could be liable, the

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200 *Id.* at 812-13.
201 *Id.* at 813.
202 *Id.*
203 Aransas Project v. Shaw, 930 F. Supp. 2d 716, 789 (S.D. Tex. 2013).
204 Brief for Appellant GBRA et al., *supra* note 116, at 60–63; *see also* Brief for TCEQ, *supra* note 117, at 40–46.
205 Brief for Appellant TCEQ, *supra* note 117, at 42–43.
206 *Id.* at 4 (quoting In re Stewart, 647 F.3d 553, 557 (5th Cir. 2011)).
207 *See* Brief for Appellee, *supra* note 128, at 109–110; *see* Ex Parte Young, 209 U.S. (1908).
208 *See id.* at 111–14.

injunction was an abuse of discretion.[209] First, the relief was based on the district court's failure to properly apply proximate cause and foreseeability.[210] Second, the court erred in claiming a "relaxed" standard for granting injunctive relief under the ESA; and third, it erred in finding a real and immediate threat of injury to cranes.[211] The court concluded that TAP had failed to establish by a preponderance of the evidence that there was a "reasonably certain threat of imminent harm."[212] In support of this conclusion, the court cited population numbers showing steadily increasing flock numbers.[213] The court further noted that "[t]here is no evidence of unusual crane deaths following the 2008-2009 winter; no evidence of dangerously higher salinities or blue crab or wolfberry deficiencies; no evidence of lack of drinking water in the Refuge; no evidence of emaciated birds or extreme behavioral patterns."[214]

b. Sovereign Immunity

The TCEQ argued that the Eleventh Amendment prohibits state agencies from being sued in federal court unless the agencies consent or an exception to sovereign immunity applies.[215] Because the declaratory and injunctive relief ordered by the district court was entered against the TCEQ yet TCEQ officials were the named defendants in the case, the Commission argued that the court exceeded its authority.[216] TAP responded this was a curable minor defect rather than an Eleventh Amendment violation and, therefore, not grounds for reversal.[217] On appeal, the Fifth Circuit summarily glossed over the sovereign immunity argument stating: "Our reversal of the state defendants' liability commands the vacating of injunctive relief. No further discussion of this error is required."[218] However, the court did note that, "even if the state defendants' issuance of water use permits had proximately caused the crane deaths, the court erred in claiming a 'relaxed' standard for granting injunctive relief, and it erred, under the proper standard, in finding a real and immediate threat of future injury to cranes."[219] Noting that TAP neither alleged nor proved "takes" in any year before or after 2008–09, that the cranes have been endangered for many decades, and that the TCEQ has been issuing permits continuously up until 2010, the court concluded there was insufficient evidence to show likely, imminent future harm by a preponderance of the evidence to sustain injunctive relief.[220]

c. Commandeering

The TCEQ claimed that the district court commandeered Texas in violation of the Tenth Amendment because, by forcing the TCEQ to stop issuing water rights and apply

209 Aransas Project v. Shaw, 756 F.3d 801, 823-24 (5th Cir. 2014).
210 *Id.* at 823.
211 *Id.* at 823-24
212 *Id.* at 824.
213 *Id.*
214 *Id.*
215 Brief for Appellant TCEQ, *supra* note 117, at 44.
216 *Id.* at 44–45.
217 Brief for Appellee, *supra* note 128, at 115.
218 Aransas Project v. Shaw, 756 F.3d 801, 823 (5th Cir. 2014).
219 *Id.*
220 *Id.*

for an ITP, it regulates Texas in its sovereign capacity as the regulator of surface water rights.[221] TAP responded that the anti-commandeering doctrine applies to Congressional and executive action, not judicial remedies.[222] TAP also argued that the district court's order does not run afoul of the Tenth Amendment because it does not obligate the TCEQ to impose state penalties for violations of federal law, and only regulates Texas as the owner of surface water rights rather than as a sovereign.[223] Not surprisingly, the Fifth Circuit did not decide the commandeering issue.[224] Although the court acknowledged the circuit split, it stated in a footnote that, "[b]ecause TAP has not demonstrated proximate cause, we need not decide whether a state can be held liable for licensing a take under the Supreme Court's anti-commandeering jurisprudence . . . ."[225]

d. EXCEEDING AUTHORITY

The TCEQ argued that, under the ESA, a court can enjoin a person from taking an endangered species but cannot force it to seek an ITP.[226] Consequently, because the district court ordered the TCEQ to apply for a permit, the TCEQ argued that the remedy exceeded the court's authority.[227] TAP responded that, if a court can enjoin an activity, it can also then specify the conditions under which an otherwise enjoinable activity can occur.[228] TAP also pointed out that "other federal courts have ordered ITPs in ESA lawsuits against a regulators."[229] However, perhaps indicating that TAP also recognized the unusual nature of the remedy, TAP suggested that if the Fifth Circuit found that the district court exceeded its authority, the court should invalidate that portion of the order and return the case to the district court on a limited remand.[230]

C. PETITION FOR REHEARING EN BANC

On July 28, 2014, TAP filed a petition for rehearing en banc advancing three arguments: (1) the panel's holding that the district court used the incorrect test for causation conflicts with Fifth Circuit precedent[231] and with established ESA jurisprudence in other circuits; (2) the panel's *de novo* review of fact findings on causation conflicts with established standards for appellate review, and even if the district court had applied an "incorrect test," Supreme Court jurisprudence warrants a remand rather than a reversal; and (3) the panel's reversal of the injunction conflicts with Supreme Court pronouncements to enjoin "takes" once they are found to occur.[232] In its petition, TAP takes issue with the Fifth Circuit's application of proximate cause to the facts of the case.[233] Pointing to

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221 Brief for Appellant TCEQ, *supra* note 117, at 27–30.
222 Brief for Appellee, *supra* note 128, at 42.
223 *Id.* at 39–44.
224 Aransas Project v. Shaw, 756 F.3d 801, 817 n. 9 (5th Cir. 2014).
225 *Id.*
226 Brief for Appellant TCEQ, *supra* note 117, at 42.
227 *See id.*
228 Brief for Appellee, *supra* note 128, at 106.
229 *Id.* at 107.
230 *Id.* at 108–09.
231 *See* Sierra Club v. Yeutter, 926 F.2d 429 (5th Cir. 1991).
232 Appellee The Aransas Project's Petition for Rehearing en Banc, vii, Aransas Project v. Shaw, No. 2:10-CV-075 (5th Cir. 2014) (July 28, 2014).
233 *Id.* at 5-8.

both Fifth Circuit precedent and the *Strahan* line of cases, the plaintiffs argue that proximate cause is established for ESA liability when governmental officials authorize activities that cause a "take."[234] The plaintiffs also argue that the court misunderstood and misapplied *Sweet Home*, consequently "muddl[ing]" the established jurisprudence and leaving too many unanswered questions.[235]

In their second point, plaintiffs claim that *de novo* review was improper because the court misapplied established precedent concluding that *de novo* review was warranted, particularly in light of the fact that "[t]he district court's findings on foreseeability tied the TCEQ's actions directly to the focused 'scope of risk' that establishes proximate cause."[236] Moreover, plaintiffs contend, if there was error, "the panel should have remanded for fact findings in light of the correct legal standard, rather than the appellate panel making findings of fact."[237] Finally, plaintiffs allege that because the Supreme Court has held that an injunction is the only remedy capable of satisfying the objectives of the ESA, the panel's reversal of the injunction was error because "[t]he district court made all necessary findings to support an injunction—including on future harm."[238] TAP further argues that the panel was in error in finding that 2008–2009 was an outlier year because of the established historical pattern of crane mortality in years of low freshwater inflows.[239]

IV. Collision Course: The Texas State Water Plan and Sharpnose and Smalleye Shiners

The whooping cranes of the San Antonio Bay were not the first endangered species to set off a conflict over water management in Texas, nor will they be the last. As the Edwards Aquifer and Klamath Bay experiences also illustrate, as finite water resources continue to be stressed by over-appropriation and competing, incompatible demands, a single dry year can leave one party a winner and another a loser—with each side's allies turning to the courts or legislature for remedies. However, the Texas legislature and Texas Supreme Court's stalwart defense of both the prior appropriation regime and compensable property rights in water place even greater stress on an already tense situation.

The Texas State Water Plan (SWP) is an ambitious $53 billion plan to provide water infrastructure to meet the State's growing needs by the year 2060.[240] Until recently, however, the SWP lacked the financial might to make real headway toward those

234 *Id.* at 5-7.

235 *Id.* at 7-8 (noting that "the Supreme Court has held that the 'take' provision is to 'apply broadly to cover indirect [actions]' and that proximate cause is to eliminate the 'bizarre.' . . . There is nothing 'bizarre' about the connection between the TCEQ actions (the authorization to divert increasing amounts of water from the rivers) and the adverse modification of the Crane habitat (the low river flows rendered the estuary hypersaline), given the proven biological link and statistical correlation.").

236 *Id.* at 10-12.

237 *Id.* at 13.

238 *Id.* at 14.

239 *Id.*

240 2012 State Water Plan, *supra* note 15, at 5.

goals.[241] With the passage of Proposition 6 in November 2013, the plans of thirsty regional water planning groups throughout the state finally appear more possibility than pipedream. Given that neither the SWP planning process nor the H.B. 4 project prioritization mandate any consideration of endangered species' needs, the ESA and Texas's water management regime remain on a direct collision course.[242] One such clash that currently looms on the horizon is that between two recently listed species of fish and recent regional and state water plans.

On August 6, 2013, the United States Fish and Wildlife Service (USFWS) released proposed rules for listing and designating critical habitat for the sharpnose and smalleye shiner.[243] The two fish are small minnows and part of the family Cyprindae.[244] Both are endemic to Texas and limited to the Brazos River basin.[245] The notice of the proposed rule specifically notes that construction of any of three reservoirs in the SWP could lead to the extinction of the species:

> [F]uture fragmentation of the remaining occupied habitat of the upper Brazos River by new impoundments would decrease the contiguous, unfragmented river habitat required by these species for successful reproduction. Texas does not have adequate water supplies to meet current or projected water demand in the upper Brazos River region, and additional reservoir construction is considered imminent. Possible new impoundments include the 2012 State Water Plan's proposed Post Reservoir in Garza County, the Double Mountain Fork Reservoir (East and West) in Stonewall County, and the South Bend Reservoir in Young County. Because extirpation of these species is expected to occur in occupied river fragments reduced to less than 275 km (171 miles) in length, any new

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241 Proposition 6 (Tex. S.J. Res. 1) was passed by voters in November of 2013, thereby authorizing a $2 billion appropriation from the State's Rainy Day Fund to the State Water Implementation Fund for Texas (SWIFT). The SWIFT was created by H.B. 4 to provide a source of funding for regional water projects in the SWP. *See generally* Henry, *supra* note 3 (discussing the passage of Proposition 6).

242 *See* Tex. H.B. 4, Act of May 28, 2013, 83rd Leg., R.S., ch. 207, § 2.01, 2013 Tex. Gen. Laws 877, 883 (codified at TEX. WATER CODE § 15.436 (2013)); TEX. WATER CODE § 16.051 (2013) (State Water Plan); TEX. WATER CODE § 16.053 (2013) (regional water plans) (Section 16.053 (e)(5)(F) only says that regional water planning groups should "*consider*[ ] . . . provision for environmental water needs").

243 Endangered Species Status for the Sharpnose Shiner and Smalleye Shiner, 78 Fed. Reg. 47582 (Aug. 6, 2013) (proposed to be codified at 50 C.F.R. pt. 17); Designation of Critical Habitat for the Sharpnose Shiner and Smalleye Shiner 78 Fed. Reg. 47612 (Aug. 6, 2013) (proposed to be codified at 50 C.F.R. pt. 17).

244 *Draft Species Status Assessment Report for the Sharpnose Shiner (Notropis oxyrhynchus) and Smalleye Shiner (N. buccula)*, U.S. FISH & WILDLIFE SERV. 8 (June 28, 2013), *available at* http://www.fws.gov/southwest/es/arlingtontexas/pdf/Sharpnose%20and%20Smalleye%20Shiner_Species%20Status%20Assessment_June2013_public%20draft.pdf.

245 *Sharpnose Shiner Species Profile*, U.S. FISH & WILDLIFE SERV., http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E04K (last updated May 21, 2014); *Smalleye Shiner Species Profile*, U.S. FISH & WILDLIFE SERV., http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E05Z (last updated May 21, 2014).

> structures further fragmenting stream habitats significantly increase the likelihood of extinction for both species.[246]

All three reservoirs were the subject of in-depth analysis in their respective 2011 regional water plans.[247] The South Bend and Double Mountain Fork Reservoirs were analyzed in the Region G (Llano Estacado) plan and the Post Reservoir was analyzed in the Region O (Brazos) plan.[248] However, of the three, only the Post Reservoir was included as a recommended water management strategy in the 2012 SWP.[249]

With the involvement of a federal agency, the construction of any one of these SWP reservoir would trigger the Section 7 ESA consultation process.[250] Federal funding and permitting are two such examples of how a federal agency could become involved.[251] Absent federal involvement, however, Section 9 of the ESA would apply, as it does to any non-federal action that has the potential to cause a take.[252] Available federal funding for water supply projects has been limited in recent years.[253] With no real forecast for substantial improvement in the availability of federal funds, financing seems an unlikely candidate for federal involvement.[254] However, as the water resource planning director at the Texas Water Development Board admits, "we would say that it is extremely unlikely that any reservoir could be constructed without some form of federal permit."[255] Given the complexity of large reservoir projects and the likelihood that a federal permit will be necessary, it appears that the showdown between the SWP and shiners may fall under the purview of Section 7. If that is the case, as the *Klamath Basin* experience illustrates, strong and preemptive federal involvement in the shiners' protection is likely.

On the other hand, if no federal financing or permits are involved, and if there is also no "comprehensive state regulatory scheme" that is due *Burford* abstention, upper Brazos reservoir construction would likely be accompanied by a slew of litigation in the federal courts mirroring the *EAA* and *TAP* cases. However, in light of the Fifth Circuit's recent rejection of TAP's wide array of scientific studies and data offered to illustrate the link between permitting and whooping crane mortality, supporters of the two small

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246 Endangered Species Status for the Sharpnose Shiner and Smalleye Shiner, 78 Fed. Reg. 47582 (Aug. 6, 2013) (proposed to be codified at 50 C.F.R. pt. 17).

247 TEX. WATER DEV. BD., 2011 REGIONAL WATER PLANS, *available at* http://www.twdb.texas.gov/waterplanning/rwp/plans/2011/index.asp.

248 *Id*. The South Bend and Double Mountain Fork reservoirs are analyzed in the Brazos (Region G) plan in section 4B.12, beginning on page 4B.12–1. Post Reservoir is analyzed in the Llano Estacado (Region O) plan in section 4.4.3.5, page 4–214.

249 2012 STATE WATER PLAN, *supra* note 15.

250 *See* 16 U.S.C. § 1536(a)(2) (2013).

251 Eric S. Laschever, *The Endangered Species Act and Its Role in Land Use Planning*, SEATTLE J. OF ENVTL. L. (Feb. 24, 2012), *available at* http://www.sjel.org/vol1/endangered-species-act-and-land-use-planning.html.

252 16 U.S.C. § 1538 (2013).

253 *See* Denise Fort & Barry Nelson, *Pipe Dreams: Water Supply Pipeline Projects in the West*, NATURAL RESOURCE DEFENSE COUNCIL, 27 (June 2012), *available at* http://www.nrdc.org/water/management/files/Water-Pipelines-report.pdf.

254 *Id*.

255 E-mail from Dr. Dan Hardin, Water Resource Planning Director, Texas Water Development Board, to Lindsay Dofelmier (Nov. 12, 2013) (on file with Author).

Texas fish are even less likely to mount a successful Section 9 case unless the Fifth Circuit's opinion is reversed on rehearing or appeal. Moreover, because the shiners are endemic to Texas, the third factor of abstention would favor *Burford* absention, if raised.[256] Consequently, in the wake of the Fifth Circuit interpretation of *Sweet Home's* pronouncement on indirect takes,[257] and in light of the ongoing drought, continued permitting, and a booming population, it appears that endangered species that rely on instream flows for their survival within Texas may be in serious danger without federal involvement or massive changes in Texas' water allocation scheme.

V. CONCLUSION

Ongoing drought and over-appropriation leave little doubt that conflicts between endangered species and water management will only continue throughout the arid West. Texas's unprecedented growth, prior appropriation regime, recognition of water rights as vested property rights, and denial of instream flow as a beneficial use make the state a prime candidate for future ESA litigation. The legislature continues to task the TCEQ with an impossible mission: prioritize water use, honor prior appropriation, and respect property rights, while also addressing environmental flow needs to the extent practicable. That Texas water management is in crisis is clear, but real solutions remain politically unpalatable. As a result, absent the "blunt axes of Federal intervention," the legislature is likely to continue its regular course of "too little, too late."[258] The legislature has shown itself capable of developing solutions under pressure, as evidenced by the Edwards Aquifer Authority Act (EAAA). But ongoing takings litigation has also illustrated the insufficiency of these past solutions.

To effectively address Texas's water woes, the legislature must unequivocally grant to the TCEQ the authority to flexibly respond to competing demands, as well as articulate a clear mandate to consider endangered species in water management decisions. Recognition of instream flow as a beneficial use is one such step in the right direction. Arguably, however, the most politically unpalatable is the most necessary solution: declare all waters the property of the State and make clear that the State has the authority to modify permittees' *right to use* state water at any time. The *Klamath, EAA,* and *TAP* cases are all cautionary tales, warning of what will come in the absence of drastic measures towards a cooperative water management regime. The question is, will the Texas legislature heed the warning or wait for the "blunt axe of Federal intervention" to fall and force its hand each time?[259]

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256 *See* Aransas Project v. Shaw, 756 F.3d 801, 811 (5th Cir. 2014). ("Water management is undoubtedly an important state interest. But what distinguishes this case somewhat from City of San Antonio and Burford is that there is also a strong federal interest. The whooping crane is an interstate, and indeed international, species.").

257 *See* Pet. for Rehearing en Banc, 7 (the "take" provision is "to apply broadly to cover indirect [actions]") (citing Babbitt v. Sweet Home Chapter of Cnmtys. for a Great Or., 515 U.S. 687, 703-04 (U.S. 1995)).

258 Sierra Club v. Lujan, No. MO–91–CA–69, 1993 WL 151353, *29 (W.D. Tex. Feb. 1, 1993) (amending findings of fact and conclusions of law).

259 *See id.*

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Recent Developments

Air Quality

EPA Approves Texas's Flexible Permit Program

On January 29, 2014, the U.S. Environmental Protection Agency (EPA) proposed conditional approval of Texas's flexible permit program as a revision to the State Implementation Plan (SIP) for attainment of the National Ambient Air Quality Standards (NAAQS) pursuant to the Clean Air Act (CAA).[1] This proposed approval comes two decades after the program was initiated in Texas and two years after a split Fifth Circuit held that the EPA's disapproval of the flexible permit program constituted a violation of the Administrative Procedure Act (APA).[2] The proposal is significant in that the flexible permit program has been a point of contention between Texas and the EPA since the program was first implemented in the state.

Setting Standards

The CAA mandates that the EPA set NAAQS for common air pollutants at levels that are deemed safe to human health.[3] However, attaining and maintaining these standards is accomplished primarily through state implementation of pollution control measures. As such, each state is required to develop and administer a SIP that details the pollution control strategy adopted by the state to achieve the NAAQS.[4] To be approved, the EPA must review each state's SIP and determine that it is consistent with the CAA standards for air quality.[5] If the SIP or a state revision to the SIP meets the statutory criteria established by the CAA, the EPA must approve it.[6] Furthermore, pursuant to the CAA, the EPA must review and make a final decision regarding approval of the SIP within eighteen months of its submission to the EPA.[7]

The CAA requires new stationary sources of pollution to obtain a permit prior to construction or major modification, a long-standing program called New Source Review (NSR).[8] States have some discretion in designing their NSR programs; however, every state must detail the NSR scheme in its SIP for approval by the EPA.[9] Without an NSR

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1 Approval and Promulgation of Implementation Plans; Texas; Revisions to the New Source Review State Implementation Plan; Flexible Permit Program, 79 Fed. Reg. 8368 (Feb. 12, 2014) (to be codified at 40 C.F.R. pt. 52).

2 Texas v. Envtl. Prot. Agency (EPA), 690 F.3d 670, 674 (5th Cir. 2012); Administrative Procedure Act (APA), 5 U.S.C.A. §§ 551-559 (West 2014).

3 *Texas v. EPA*, 690 F.3d at 674; 42 U.S.C.A. § 7409(a)-(b) (West 2014).

4 42 U.S.C.A. § 7410(a)(1).

5 *Id.* § 7410(a)(3)(B).

6 *Id.* § 7410(k)(3).

7 *Id.* § 7410(k).

8 *Texas v. EPA*, 690 F.3d at 674.

9 40 C.F.R. § 51.160 (2014).

permit, a pollution source will violate the CAA, regardless of the amount of pollution that is ultimately emitted by the source.[10] The CAA's NSR criteria distinguish between major and minor sources of pollution.[11] Major sources have received considerably more regulatory attention from the EPA and Congress, which has resulted in lengthy and nuanced regulations for major sources depending, in part, on the air quality of the geographic region where they are located.[12] Minor sources, on the other hand, have received much less regulatory attention from Congress and the EPA, allowing states more flexibility to develop minor source NSR, which applies without regard to existing air quality in the area.[13]

THE TEXAS FLEXIBLE PERMIT PROGRAM

In 1994, Texas submitted a revised SIP to the EPA, adding a flexible permit program to its implementation of minor-source NSR.[14] The program allowed a polluting source to obtain a permit establishing an overall emissions cap; modifications could then be made to the polluting source without requiring additional regulatory review, so long as the emissions increase did not exceed the cap established by the permit.[15] In other words, the flexible permit program eliminated the need for owners or operators to obtain a permit amendment whenever a modification was made to the source that could affect the emission levels, so long as the source as a whole stayed within its allocated emission amount. In doing so, the flexible permit program enabled more "operational flexibility."[16] After the SIP was sent to the EPA for review, the Texas Legislature incorporated the flexible permit program into the Texas Clean Air Act.[17]

Although the CAA requires a decision on approval of the SIP within eighteen months, the EPA delayed making a decision on the flexible permit program until 2010.[18] The EPA ultimately disapproved the program, concluding that the flexible permit program "may allow major pollution sources to evade Major NSR; the provisions for moni-

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10 *Texas v. EPA*, 690 F.3d at 674.

11 *Id.* at 674-75 (noting that, typically, major sources are pollution sources that emit in excess of 100 tons per year of a regulated contaminant, whereas minor sources emit less than 100 tons per year); *see also* 42 U.S.C.A. § 7412(a)(1) (defining "major source" as "any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants").

12 *Texas v. EPA*, 690 F.3d at 675.

13 *Id.*

14 *Id.* at 676.

15 *Id.*

16 Approval and Promulgation of Implementation Plans; Texas; Revisions to the New Source Review State Implementation Plan; Flexible Permit Program, 79 Fed. Reg. 8368, 8373 (Feb. 12, 2014).

17 *See* TEX. HEALTH & SAFETY CODE ANN. § 382.003(9)(F) (West 2014).

18 Approval and Promulgation of Implementation Plans; Texas; Revisions to the New Source Review (NSR) State Implementation Plan (SIP); Flexible Permits, 75 Fed. Reg. 41312 (July 15, 2010) (to be codified at 40 C.F.R. pt. 52).

toring, recordkeeping, and reporting are inadequate; and the methodology for calculating the flexible permit emissions caps lacks clarity and is not replicable."[19]

However, in the intervening sixteen years, the Texas Commission on Environmental Quality (TCEQ) and its predecessor agency issued approximately 140 permits under the terms of the flexible permit program, all of which became subject to enforcement for CAA violations with the EPA's disapproval of the program.[20] Thus, upon denial, the State of Texas and the U.S. Chamber of Commerce, along with representatives from the manufacturing, chemical, and petroleum industries, petitioned for review under the Administrative Procedures Act (APA).[21] In 2012, a split Fifth Circuit held that the EPA acted arbitrarily and capriciously in disapproving the flexible permit program and subsequently vacated the ruling and remanded for further consideration by the EPA.[22]

Rather than appeal the decision, the EPA initiated negotiations with the TCEQ. Through a cooperative exchange, the TCEQ redrafted the flexible permit program to sufficiently assure the EPA that the program would ensure compliance with major-source NSR when required.[23] Such changes include: (1) redefining the emission cap and individual emission limitation, including requirements for monitoring and calculations to demonstrate compliance with the established emission cap; (2) revising recordkeeping requirements to ensure continuous compliance with emission cap; (3) requiring data to be acquired through sound and generally acceptable scientific procedures; and (4) developing emission caps based on the best available control technology.[24] In September of 2013, the TCEQ adopted a SIP revision to the minor-source NSR flexible permit program consistent with these changes,[25] which was submitted to the EPA in October 2013.[26] On January 29, 2014, the EPA conditionally approved the revision, allowing the flexible permit program to continue.[27]

The flexible permit program was conditionally approved pending the TCEQ's amendment of the program's rules in various minor respects. The EPA acknowledged that these amendments "will not materially alter the submitted program. . ."[28] On February 12, 2014, the TCEQ Commissioners approved the proposed rule changes.[29] Following an extended comment period, the EPA finalized its approval of the revised SIP, effective August 13, 2014. As such, after twenty years, "the Flexible Permit Program for

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19 *Texas v. EPA*, 690 F.3d at 677.

20 *Id.* at 674, 676.

21 *Id.* at 674.

22 *Id.* at 686.

23 *See* Approval and Promulgation of Implementation Plans; Texas; Revisions to the New Source Review State Implementation Plan; Flexible Permit Program, 79 Fed. Reg. 8368, 8371 (Feb. 12, 2014).

24 *Id.*

25 *See* 30 TEX. ADMIN. CODE §§ 116.710-.765 (2013) (Tex. Comm'n on Envtl. Quality).

26 Approval and Promulgation of Implementation Plans; Texas; Revisions to the New Source Review State Implementation Plan; Flexible Permit Program, 79 Fed. Reg. at 8371.

27 *Id.*

28 *Id.* at 8376.

29 39 Tex. Reg. 1339, 1340 (2014) (to be codified at 30 TEX. ADMIN. CODE §§ 116.13, 116.710-116.711, 116.715-116.718, 116.721, 116.765) (proposed Feb. 28, 2014) (Tex. Comm'n on Envtl. Quality).

the first time becomes an approved and thus a federally approved enforceable requirement in the Texas [SIP]."[30]

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NATURAL RESOURCES

PREEMPTION AND STATE COMMON LAW NUISANCE CLAIMS — A LOOK AT THE ARGUMENTS

On February 20, 2014, GenOn filed a petition for certiorari asking the Supreme Court to reverse a Third Circuit ruling that held two savings clauses in the Clean Air Act (CAA) as preserving state tort actions against individuals.[1] This case presents a recurring question that the Court left open in *Am. Elec. Power Co. v. Conn.*, 131 S. Ct. 2527, 2540 (2011): whether the CAA preempts state nuisance claims under state common law that imposes different emissions restrictions from those adopted pursuant to the Act.[2] Indeed, these issues are explored thoroughly by Scott Armstrong in his Student Note in this issue of the Journal.[3] Although focused on the CAA, the arguments offered in support of or against preemption could reasonably extend to other areas where federal preemption of state and local environmental regulations is raised.

BACKGROUND

The parties' arguments in this case frame different positions regarding how air pollution in the United States should be controlled. Petitioner argues that the federal CAA sets forth a comprehensive system of cooperative federalism under which a unitary permitting program governs emissions levels by each source, and under which the exclusive methods for controlling air pollution are specified.[4] Petitioner posits that it is crucial to have nationwide, uniform emissions standards.[5] Respondents assert that the Act's system is supplemented by common law remedies, such as public nuisance, under which

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30 79 Fed. Reg. 40666 (July 14, 2014) (to be codified at 40 C.F.R. § 52) (eff. Aug. 13, 2014).

1 Bell v. Cheswick Generating Station, 734 F.3d 188 (3rd Cir. 2013), *cert. denied*, 134 S. Ct. 2696 (2014) (No.13-1013).

2 Petition for Writ of Certiorari, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 709667, at *2.

3 Scott Armstrong, *The Continuing Necessity of Common Law Torts for Environmental Harms: Why the Clean Air Act Should Not Preempt State Law Claims Against Stationary Sources*, 44 TEX. ENV. L.J. 391 (Nov. 2014).

4 *Bell*, 734 F.3d at 197 (3rd Cir. 2013).

5 *Id.*

emissions can be controlled prospectively by equitable relief, and influenced retrospectively by awards of money damages.[6] They insist that such relief is available even when regulated entities are in full compliance with the CAA.[7]

On August 20, 2013, the United States Court of Appeals for the Third Circuit reversed the lower court's decision and held that the Clean Air Act does not preempt private property owners' putative class action tort law claims.[8]

The Petition

The petitioner, GenOn Power Midwest, L.P. (GenOn), operates Cheswick Generating Station.[9] The respondents are Kristie Bell and Joan Luppe (Bell).[10] GenOn contends that the certiorari should be granted in order to prevent confusion and to follow precedent.[11] It emphasizes the significance of the question presented in this case as the decision in the lower court is damaging to the interests in uniformity and predictability the Act was structured to advance.[12] The underlying preeminent goal of the Act is to ensure some level of uniformity, certainty, and predictability in the application of air emissions standards throughout the country.[13] GenOn argues that this goal will be "fatally" undermined if state common law nuisance claims are allowed to proceed as they turn to a court to create and enforce different emissions standards based on their own assessments of what is reasonable under the circumstances.[14] Such practice will not only result in inconsistent standards applied to regulated entities, even within a single jurisdiction, but also "deepens the split among federal and state courts."[15]

Furthermore, GenOn argues the Third Circuit's decision is inconsistent with the Supreme Court's precedent in *Am. Elec. Power Co.*[16] The specific issue presented in *Am. Elec. Power Co.* was whether "the CAA and the EPA actions it authorizes displace any federal common law right."[17] This Court held that any such common law claims are displaced, and the Act creates a precise and carefully balanced relationship between federal regulatory bodies, state regulatory bodies, and courts.[18] Within this relationship, courts have only a secondary role of reviewing the expert agencies' decisions and ensuring compliance with statutory requirements.[19] The Court recognized that "the expert agency is surely better equipped to do the job than individual district judges issuing ad hoc, case-by-case injunctions."[20] GenOn contends that because the only distinction between *Am. Elec. Power Co.* and the case at bar is that the claims here are "fashioned as

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6 *Id.* at 192.
7 *Id.*
8 *Id.* at 197.
9 Petition for Writ of Certiorari, *supra* note 2, at *II.
10 *Id.*
11 *Id.* at *3.
12 *Id.* at *4.
13 Am. Elec. Power Co. v. Conn., 131 S. Ct. 2527, 2539 (2011).
14 Petition for Writ of Certiorari, *supra* note 2, at *15.
15 *Id.* at *22.
16 *Id.*
17 *Am. Elec. Power Co.*, 131 S. Ct. at 2537.
18 *Id.*
19 *Id.* at 2539-40.
20 Petition for Writ of Certiorari, *supra* note 2, at *23-*24.

arising under state common law," the Third Circuit should have precluded state common law nuisance claims for the same reason as the Court's decision.[21] Petitioner strongly argues that the Third Circuit misread the savings clause of the Clean Air Act and misinterpreted this Court's precedents.[22]

AMICUS CURIAE

On March 26, 2014, five Briefs of Amicus Curiae were filed in support of the petitioner. The first brief was filed by the coalitions and trade organizations whose members include organizations and companies doing business in the United States that are affected by the public nuisance litigation governed by the Supreme Court's decisions.[23] As regulated entities, many members operate under permits issued under the authority of the CAA.[24] The first amicus brief contends that the clear emissions standards specified pursuant to the CAA's permitting programs are essential to successful business planning and operations.[25] Without the "reliability, predictability, certainty, finality, and stability that CAA permits provide," businesses will not be able to make investments that improve and expand their facilities and empower the development and improvement of their products.[26] The role of CAA is to provide "clear regulatory standards to guide the regulated community's conduct, strong incentives to conform to those standards, and a secure permitted environment" to the regulated entities.[27] The brief describes the common law public nuisance as "blurred," "wilderness of law," "standardless" and unsuitable for controlling air pollution.[28] Amici also makes similar argument as the petitioner, including that it is logical and essential for the Court to adopt the *Am. Elec. Power Co.* decision, which rejected an attempt to use public nuisance litigation under federal common law to control air pollution, in the context of the state common law.[29]

The second brief of amicus curiae was filed by the Utility Air Regulatory Group (UARG), a non-profit, unincorporated trade association of individual electric utilities and national industry trade associations that has a direct interest in this case.[30] Its members would be exposed to liability under state common law for activities authorized by the CAA permits should the decision below stands.[31] UARG is worried that if state nuisance claims are allowed to proceed, they would make emissions control requirements "unpredictable and unmanageable, open the door for a host of new litigation collaterally attacking federal and state requirements, and invite courts to usurp the role of expert agencies."[32] These problems would pose difficulties for regulated entities to "secure fi-

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21 *Id.* at *24.
22 *Id.* at *25.
23 Brief of Nat'l Ass'n of Mfr. et al. as Amici Curiae Supporting Petitioner, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1260137, at *1.
24 *Id.*
25 *Id.* at *7.
26 *Id.* at *10.
27 *Id.*
28 *Id.* at *12.
29 *Id.* at *16.
30 Brief of Amicus Curiae Util. Air Regulatory Grp. in Support of Petitioner, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1260138, at *1.
31 *Id.*
32 *Id.* at *6.

nancing and make decisions of future operations", and "discourage investment in new entities to take the place of those forced out of business by tort suits."[33] The additional cost of operating in an atmosphere of unsettled legal obligations and unpredictable emissions standards, UARG contends, would be passed on to consumers.[34] Furthermore, UARG contends split decisions in other federal and state courts to be the reason for the Supreme Court to hear this case.[35] Lastly, UARG makes similar argument as the petitioner that the Third Circuit's decision conflicts with relevant Supreme Court precedent, particularly with *Am. Elec. Power Co.*[36]

The third amicus brief was filed by Chamber of Commerce, American Fuel & Petrochemical Manufacturers, and American Petroleum Institute.[37] The brief puts forward similar arguments made by the petitioner that the Third Circuit's decision is going to directly interfere with the "aims of the CAA and its application through the permitting process."[38] The decision will inevitably impose "intolerable uncertainty and costs" on the regulated business community.[39] The brief reasoned that when there are state tort liabilities on emissions that were permitted by the CAA, the regulated businesses will not be able to "plan, invest, and prepare" well in advance of implementation.[40] Furthermore, the brief contended that allowing non-expert judges and juries to handle the "complex task" of environmental, public health, and scientific evaluations is not in the public's best interest.[41]

American Tort Reform Association (ATRA) filed the last amicus brief in support of the petitioner. The Association's interest lies in ensuring that courts follow "constitutional and traditional tort law principles."[42] The brief urges the Court to hear the case and address the anticipated state law issue left open in *Am. Elec. Power Co.*.[43] ATRA wants the Court to reverse the Court of Appeal's decision that is not only "out of step" with the precedent in *Am. Elec. Power Co.*, but also precludes Congress's purpose in CAA to allow experts, not the judges, to largely make judgment to permit omissions.[44]

The last amicus brief was filed by the Voice of the Defense Bar, an international association of defense lawyers who represent individuals, corporations, insurance carriers, and local governments involved in civil litigation.[45] The brief asks the Court to grant certiorari in order to protect the values offered by CAA: predictability and consistency

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33 *Id.* at *8.
34 *Id.*
35 *Id.* at *16.
36 *Id.* at *19.
37 Brief of Amici Curiae Chamber of Commerce of the U.S. et al. Supporting Petitioner, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1275186, at *1.
38 *Id.* at *4.
39 *Id.* at *12.
40 *Id.* at *15.
41 *Id.* at *17.
42 Brief of Amici Curiae Am. Tort Reform Ass'n in Support of Petitioner, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1275187, at *1.
43 *Id.* at *3.
44 *Id.* at *16.
45 Brief of Amici Curiae DRI – The Voice of the Def. Bar in Support of Respondents, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL

of outcomes in litigations, limitation of potential lawsuits, and protection of reliance interests.[46] It adds to the petitioner's assertion that state nuisance tort law is a "vague and malleable theory inconsistent with the comprehensive provisions of the [Clean Air] Act." It argues the Court should grant certiorari so that it can affirm the Act's preemption power over state common law nuisance claims that provoke inconsistency with "Congress's intent to create comprehensive, uniform, regulatory provisions addressing air pollution" by enacting the CAA.[47]

LOOKING AHEAD

On June 2, 2014, the Supreme Court denied certiorari.[48] Thus, whether the CAA preempts state nuisance claims under state common law that imposes different emissions restrictions from those adopted pursuant to the Clean Air Act remains an open issue.

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WATER QUALITY

TCEQ AUTHORITY: *GALILEE PARTNERS, L.P. V. TEX. COMM'N ON ENVTL. QUALITY* AND *LA VILLA INDEP. SCH. DIST. V. CITY OF LA VILLA, TEXAS*

The Texas Commission on Environmental Quality (TCEQ) has recently been involved in two cases regarding the Texas Water Code, specifically Sections 13.041 and 51.021. These two cases, *Galilee Partners, L.P. v. Tex. Comm'n on Envtl. Quality*[1] and *La Villa Indep. Sch. Dist. v. City of La Villa, Texas*,[2] represent significant developments on the authority of the TCEQ.

1275188, at *1. Despite the title of the brief indicating it is filed in support of the respondents, the content actually supports the petitioner's position.

46 *Id.* at *3.

47 *Id.* at *11.

48 Bell v. Cheswick Generating Station, 134 S. Ct. 2696 (2014) (No.13-1013).

1 Galilee Partners, L.P. v. Texas Comm'n on Envtl Quality, No. 11–12–00033–CV, 2014 WL 358287 (Tex. App.—Eastland Jan. 31, 2014, no pet.) (mem. op.).

2 Tex. Comm'n on Envtl. Quality, *Request for Emergency Order filed by La Villa Indep. Sch. Dist.*, TCEQ Docket No. 2013-2211-UCR; Marked Agenda, TCEQ Public Meeting Jan. 15, 2014, Item No. 2, *available at* http://www.tceq.state.tx.us/assets/public/comm_exec/agendas/comm/marked/2014/140115.Mrk.pdf [hereinafter "La Villa ISD Request"].

Galilee Partners, L.P. v. Tex. Comm'n on Envtl. Quality

The 11th Court of Appeals affirmed a district court ruling in favor of the TCEQ's decision to deny Galilee's application for the Maypearl Water Control and Improvement District No. 1 in Ellis County.[3] Though Galilee noted that the TCEQ had never before denied an application for a water improvement district based upon a finding that the proposed district would not be financially feasible, the Court found the TCEQ to be authorized to take such action under Section 51.021 of the Texas Water Code.[4] In effect, this ruling recognizes the authority of the TCEQ to analyze the economic feasibility of any proposed district prior to making a decision on whether or not to accept an application.

Galilee sought the TCEQ's approval of a plan to create a water control and improvement district.[5] Galilee's purpose for the proposed district was to provide for the development of "affordable workforce housing for the growing Dallas-Fort Worth metro-plex area."[6] This would have included over 700 small residential sites, as well as a school and an area for commercial development.[7] Both the Ellis Prairie Soil and Water Conservation District and Ellis County filed protests to the application by Galilee, and the case was assigned to an Administrative Law Judge (ALJ) for a hearing.[8] Upon the recommendation of the ALJ, the TCEQ denied Galilee's application, and the district court affirmed the TCEQ's decision.[9] In denying Galilee's application for the proposed District, the TCEQ evaluated issues surrounding the economic success of such a development.[10] Although the executive director of the TCEQ was originally in favor of this proposal, the collapse of the subprime mortgage industry and housing crisis that followed forced a change in his position.[11] At the time of the denial of the application, the TCEQ found that "Galilee had failed to meet its burden to prove there was a need for the District and . . . the District was not economically feasible . . . ."[12]

On appeal, Galilee argued that the TCEQ lacked the authority to deny an application "based on a finding that a proposed district is not immediately financially feasible or that the property covered by the proposed district is not marketable as proposed."[13] According to Galilee, the TCEQ had never exercised such "newfound authority,"[14] even though the Texas Water Code provides that every application must provide a "statement . . . of the work to be done and the necessity and feasibility of the project"[15] as well as a "statement of the estimated cost of the project."[16]

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3 *Galilee Partners, L.P.*, 2014 WL 358287, at *1.
4 *Id.* at *4-*5.
5 *Id.* at *1.
6 *Id.*
7 *Id.*
8 *Id.*
9 *Id.*
10 *See id.* at *3.
11 *Id.*
12 *Id.*
13 *Id.* at *2.
14 *Id.*
15 Tex. Water Code Ann. § 51.014(5) (West 2008).
16 *Id.* § 51.014(6).

To resolve this issue, the Court looked at Section 51.021 of the Texas Water Code, which governs the actions of the TCEQ following the contested case hearing. This section instructs that the TCEQ must grant the petition requesting the creation of a district if it appears, among other things, that the organization of the district is feasible and practicable and there is a public necessity or need for the district.[17] The TCEQ construed this to mean that the proposed district must be economically feasible, while Galilee argued that the district's organizational feasibility should not be equated with the immediate real estate market feasibility.[18]

The Court disagreed with Galilee, holding that "the statutes not only authorize the Commission to determine where there is a public necessity or need for the district, but also require it to make such a determination."[19] Otherwise, there would be little reason for Section 51.014, which requires statements on the necessity and feasibility of the project.[20] Finding that, due to the subprime mortgage crash and housing crisis, there was no market for the property planned by the development and thus no need for the district, the TCEQ's denial was permissible.[21] Further, the Court overruled Galilee's other grounds for appeal, which were based on the evidence introduced by the TCEQ at the district court and the TCEQ's purported failure to consider the public benefit of the proposed District.[22]

La Villa Independent School District v. City of La Villa, Texas

The second case stems from a request by the La Villa Independent School District (La Villa ISD) for "the issuance of an emergency order to compel the City of La Villa to provide continuous and adequate water and sewer service in Hidalgo County, Texas, pursuant to Texas Water Code Section 13.041(d) and Title 30, Section 291.14(a) of the Texas Administrative Code."[23] Section 13.041(1) of the Water Code authorizes the TCEQ to issue emergency orders:

> to compel a water or sewer service provider that has obtained or is required to obtain a certificate of public convenience and necessity to provide continuous and adequate water service, sewer service, or both, if the discontinuance of the service is imminent or has occurred because of the service provider's actions or failure to act . . . .

La Villa ISD sought an emergency order to restore water and sewer service to their buildings following a shut-off by the City of La Villa, which occurred after a dispute over an alleged outstanding balance of approximately $57,212.69.[24]

The TCEQ elected to take no action on La Villa ISD's request for an emergency order.[25] The TCEQ concluded that "the Commission lacks jurisdiction over the underlying billing dispute between the City's municipally-owned utility and any retail customer

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17 *Id.* § 51.021(a)(1).
18 *See Galilee Partners, L.P.*, 2014 WL 358287, at *3-*4.
19 *Id* at *4.
20 TEX. WATER CODE ANN. § 51.014(5)-(6).
21 *Galilee Partners, L.P.*, 2014 WL 358287, at *5.
22 *Id.*
23 La Villa ISD Request, *supra* note 2.
24 *Id.*
25 *Id.*

within the corporate limits of the City."[26] Because the central problem between La Villa ISD and the City of La Villa was the alleged outstanding balance, the TCEQ does not have the ability to override the City's decision to cut off water. Further, the TCEQ declined to take action on La Villa ISD's request because the TCEQ's authority to issue an emergency order when the City did not hold a certificate of convenience and necessity (CCN) was "questionable."[27] Finally, notwithstanding the extensive detailing of potential threats to public health listed by La Villa ISD in their application for an emergency order,[28] the TCEQ found that the request did not demonstrate an imminent threat to public health and safety.[29]

Conclusion

These two cases serve to highlight the authority of the TCEQ regarding water districts and retail public utilities. In *Galilee*, the Commission's denial of Galilee's application for a new water district affirmed the TCEQ's authority to consider a potential project's financial feasibility prior to making a decision on an application.[30] In *La Villa ISD*, on the other hand, the TCEQ noted a limit on its own authority when dealing with a city's municipally-owned utility, particularly when the City does not hold a water CCN.[31]

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Water Rights

Dispute Over the Rio Grande: *Texas v. New Mexico and Colorado*

For a few years, Texas and New Mexico have been in a legal dispute over what water rights each have over the Rio Grande River under the interstate Rio Grande Compact. In 2013, Texas brought this dispute to the United States Supreme Court in a petition for

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26 *Id.*

27 *Id.*

28 La Villa Independent School District's First Amended Application for Emergency Order at 2-3, La Villa Independent School District v. City of La Villa, Texas, TCEQ Docket No. 2013-2211-UCR (2014), *available at* http://www7.tceq.state.tx.us/uploads/eagendas/Misc/2013-2211-UCR-misc.pdf.

29 La Villa ISD Request, *supra* note 2.

30 *See Galilee Partners, L.P.*, 2014 WL 358287, at *4-*5.

31 *See* La Villa ISD Request, *supra* note 2.

leave to file a complaint, arguing that only the Supreme Court has original jurisdiction.[1] On January 27, 2014, the Court granted Texas's motion and allowed New Mexico to file a motion to dismiss pursuant to Rule 12(b)(6) of the Federal Rules of Civil Procedure.[2] While the Supreme Court granted the United States' motion to intervene as a plaintiff,[3] further filings are pending.

HISTORICAL BACKGROUND

One cannot understand the history of the Rio Grande Compact without looking at the Rio Grande Project, which influenced the drafting of the Compact. In 1902, Congress enacted the Reclamation Act, which authorized funding for irrigation works in New Mexico (a U.S. Territory at the time), along with other states.[4] Subsequently, in 1905, Congress extended the Act to include the area of Texas bordering the Rio Grande river and later the entirety of Texas, thereby allowing irrigation of water from the future Elephant Butte reservoir to Texas.[5]

In 1904, the U.S. Bureau of Reclamation ("BuRec") proposed to build a dam at Elephant Butte in New Mexico and to distribute water from the newly created reservoir to Texas and New Mexico in amounts proportional to the irrigable lands in each state.[6] This dam was part of the Rio Grande Project, and construction started in 1908 and was completed in 1916.[7]

In 1906, the BuRec into contracts with the Elephant Butte Irrigation District (EBID) in New Mexico and the El Paso County Water Improvement District No.1 (EPCWID) in Texas for the irrigation of 155,000 acres of land (67,000 acres in Texas and 88,00 acres in New Mexico) from the soon-to-be Elephant Butte reservoir.[8] The two districts, along with the U.S. Assistant Secretary of the Interior, signed these contracts in 1938 (hereinafter, "the Reclamation contracts") to distribute water in times of shortage in proportion to the amount of acreage they owned (67/155 for New Mexico

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1 Motion for Leave to File Complaint, Complaint, and Brief in Support of Motion for Leave to File Complaint, Texas v. New Mexico & Colorado, 2013 U.S. S. Ct. Briefs LEXIS 5526, at *2-*3 (Jan. 8, 2013) (No. 141) [hereinafter Brief for Petitioner].

2 *Texas*, 134 S. Ct. 1050 (Jan. 27, 2014).

3 *Id.*, 134 S. Ct. 1783 (Mar. 31, 2014).

4 43 U.S.C.A. § 391 (West 2014) (establishing the "reclamation fund," which funded irrigation works in the States and Territories).

5 *See Rio Grande Project*, U.S. DEP'T INTERIOR, BUREAU OF RECLAMATION, *available at* https://www.usbr.gov/projects/Project.jsp?proj_Name=Rio+Grande+Project (last updated May 16, 2011).

6 *Id.*

7 *Id.*

8 Brief for the United States as Amicus Curiae, Texas v. New Mexico & Colorado, 134 S. Ct. 1050, (Dec. 10, 2013) (No. 141) 2013 WL 6917383, at *5 [hereinafter Brief for Solicitor General] (citing *Regional Planning Part VI – The Rio Grande Joint Investigation in the Upper Rio Grande Basin in Colorado, New Mexico, and Texas* 1936-1937, Nat'l Res. Comm. 83 (Feb. 1938), *available at* https://archive.org/details/regionalplanning1938riogranderich).

and 88/155 for Texas).[9] The BuRec calculates diversion allocations on the same proportions to this day.[10]

In 1938, Texas, New Mexico, and Colorado signed the Rio Grande Compact with the intent "to remove all causes of present and future controversy among these States . . . with respect to the use of the waters of the Rio Grande above Fort Quitman, Texas" and "for the purpose of effecting an equitable apportionment of such waters."[11] Most importantly, the Compact required New Mexico to deliver a certain quantity of water to San Marcial, a gauging station in New Mexico upstream from Elephant Butte.[12]

The Current Conflict

The current conflict between New Mexico and Texas centers on whether or not New Mexico's actions raise an issue under the Compact that only the U.S. Supreme Court can resolve.[13] It is the general rule that the Supreme Court has original jurisdiction to resolve disputes involving interstate compacts.[14] However, the Court has held that the claim must be serious and there must not be an available alternative forum.[15]

Texas alleged in its motion for leave to file a complaint that New Mexico "has increasingly allowed the diversion of surface water, and has allowed and authorized the extraction of water from beneath the ground, downstream of Elephant Butte Dam."[16] Texas further contended that such diversion "adversely affects the delivery of water intended for use in the Rio Grande Project" and thus violates the Rio Grande Compact.[17] New Mexico, on the other hand, alleged that it is fully complying with the Compact and that the real nature of Texas's complaint is that Texas water users are not receiving water under the Reclamation contracts with the federal government.[18] New Mexico further claimed that the case should be dismissed because this is not an issue under the Compact, and that, even if it were, the U.S. Supreme Court does not have original jurisdiction.[19]

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9 *Id.*

10 *See Supplemental Environmental Assessment, Implementation of Rio Grande Project Operating Procedures, New Mexico and Texas*, U.S. Dep't Interior, Bureau of Reclamation 10, 13 (June 21, 2013), *available at* http://www.usbr.gov/uc/albuq/envdocs/ea/riogrande/op-Proced/Supplemental/Final-SuppEA.pdf (noting that taking no action to change the operation of the Project would retain the 67/155 and 88/155 proportional distribution between EPCWID and EBID respectively).

11 Tex. Water Code Ann. § 41.009 (West 2013).

12 *Id.*

13 *See* Brief for Petitioner, *supra* note 1, at *2-*3.

14 Texas v. New Mexico, 462 U.S. 554, 567 (1983) (citing U.S. Const. art. III, § 2, cl. 1).

15 Mississippi v. Louisiana, 506 U.S. 73, 77 (1992).

16 Brief for Petitioner, *supra* note 1, at *9.

17 *Id.*

18 New Mexico's Brief in Opposition to Texas' Motion For Leave to File Complaint, Texas v. New Mexico & Colorado, 134 S. Ct. 1050 (Mar. 11, 2013) (No. 141) 2013 WL 6917385, at *12-*13 [hereinafter Brief for Respondent].

19 *Id.* at *9-*13.

TEXAS'S ARGUMENTS

Before Texas can argue the Supreme Court has original jurisdiction, there is a threshold question as to whether or not an issue can be raised under the Compact because New Mexico argues that it is not obligated to deliver water beyond the Elephant Butte Reservoir.[20] On this preliminary issue, Texas argues that the express terms of the Compact illustrate that the parties intended New Mexico's obligations to extend beyond Elephant Butte.[21] This argument is supported by Supreme Court precedent stating that the Court prioritizes the express terms of a Compact to determine the intent of the parties.[22]

The Solicitor General points out in his brief that one of the Compact's purposes was to remove all causes of present and future controversy among the compacting states "with respect to the use of the waters of the Rio Grande *above Fort Quitman, Texas*."[23] Under the Solicitor General's argument, the Reclamation contracts are part of the Compact.[24] As support, the Solicitor General appeals to a letter the Compact Commissioner wrote in 1938 to an attorney inquiring as to why the Compact did not specify an amount of water to be delivered to Texas.[25] The Commissioner replied that "the question of the division of the water released from Elephant Butte reservoir is taken care of by contracts between the districts under the Rio Grande Project and the Bureau of Reclamation."[26] Thus, Texas argues that a diversion of surface water and groundwater downstream from the Elephant Butte Reservoir violates the intent of the Compact drafters insofar as it affects compliance with the Reclamation contracts.

Another argument the Solicitor General makes on behalf of Texas is that it would be absurd for Texas to sign a compact with New Mexico where New Mexico could deplete all of the water it delivered to Elephant Butte as soon as the water started moving downstream.[27] This would leave Texas with no water at all and would raise the question as to why Texas would enter a compact where it receives no benefit.

NEW MEXICO'S ARGUMENTS

New Mexico's main argument is that there is no obligation expressly stated under the Compact for New Mexico to deliver water or allow water to flow unimpeded to the Texas-New Mexico border, and thus Texas should be looking at the Reclamation contracts, where the federal government is responsible for delivering the water.[28] As Supreme Court precedent suggests that the Court looks primarily to the express terms of an interstate compact to determine the intent of the parties,[29] the absence of such express

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20 Brief for Respondent, *supra* note 18, at *19-*21.
21 *See* Brief for Petitioner, *supra* note 1, at *6-*7.
22 Tarrant Reg'l Water Dist. v. Hermann, 133 S. Ct. 2120, 2130 (2013).
23 Brief for Solicitor General, *supra* note 8, at *6 (citing TEX. WATER CODE ANN. § 41.009) (emphasis added).
24 *See id.* at *13-*14.
25 *Id.* at *14 (citing Letter from Frank B. Clayton, Compact Commissioner for Texas, to Sawnie Smith, Senior Partner at Smith & Hall (Oct. 4, 1938)).
26 *Id.*
27 *Id.*
28 Brief for Respondent, *supra* note 18, at *13.
29 Tarrant Reg'l Water Dist. v. Hermann, 133 S.Ct. 2120, 2130 (2013).

terms weighs against New Mexico. If there is no intent, then no issue is raised under the Compact.

Nonetheless, New Mexico presents two alternative arguments to support its position. The first argument looks to the Compact itself to show the drafters' lack of intent for New Mexico to deliver water to the Texas-New Mexico border. Specifically, New Mexico points to Article III of the Compact, which expressly states that Colorado must deliver water to the Colorado-New Mexico state line.[30] In contrast, no such provision exists in Article IV, which discusses New Mexico's delivery obligations.[31] Rather, Article IV states that New Mexico's delivery point is to Elephant Butte, which is located 105 miles north of the state line, so the drafters must not have intended to include a delivery requirement at the border.[32]

The second argument points to an alleged inconsistency in Texas's argument that New Mexico must allow water to flow to the Texas-New Mexico border unimpeded. Texas contends that the water under the Compact is delivered to Elephant Butte, allocated according to the Rio Grande Project, and is subject to the relevant contract arrangements.[33] Once New Mexico delivers this water, it relinquishes its rights to these contractual arrangements involving the federal government.[34] Given this state of affairs, Texas asserts that New Mexico is still responsible for ensuring the water flows to the Texas-New Mexico border unimpeded.[35] New Mexico finds inconsistent that Texas argues that New Mexico is legally obligated to allow water to flow unimpeded after the point where its legal obligation to handle the water has been terminated under the Compact.[36] New Mexico also argued that the issues raised by Texas are being litigated in alternative forums, and thus can be vindicated in other ongoing cases.[37]

Looking Ahead

The main thrust of New Mexico's and Texas's arguments will likely focus on contract interpretation and whether the issue of violation arises under the Rio Grande Compact or the Reclamation contracts. The force of Texas's arguments hinge on the Compact drafters' intent to read the Compact together with the Reclamation contracts. On the other side, the force of New Mexico's arguments rest on establishing that the drafters did not intend the two documents to be read together and that this issue is solely a concern under the Reclamation contracts. If Texas succeeds in establishing that the issue raised arises under the Compact, then it will have to establish that its issue is serious and that there exists no alternative forum to resolve this dispute.[38]

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30 Brief for Respondent, *supra* note 18, at *12 (citing Tex. Water Code Ann. § 41.009).
31 *Id.*
32 *Id.*
33 Brief for Petitioner, *supra* note 1, at *2-*3.
34 *See id.*
35 *Id.* at *3.
36 Brief for Respondent, *supra* note 18, at *17.
37 *Id.* at *22.
38 Mississippi v. Louisiana, 506 U.S. 73, 77 (1992).

also worked with the Texas Water Commission, the Texas Supreme Court, and the Dallas Court of Appeals.

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FEDERAL CASENOTE

CHUBB CUSTOM INS. CO. V. SPACE SYS./LORAL INC., 710 F.3D 946 (9TH CIR. 2013)

In *Chubb Custom Ins. Co. v. Space Sys./Loral Inc.*, the Ninth Circuit issued a ruling that more narrowly defined the ability of insurers to make a claim under Sections 112 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).[1]

FACTS AND PROCEDURAL BACKGROUND

Chubb Custom Insurance Company ("Chubb") issued an environmental insurance policy to Taube-Koret Campus for Jewish Life ("Taube-Koret") for real property that Taube-Koret purchased from Sun-Microsystems ("Sun").[2] Sun had begun the cleanup of lands that Ford Aerospace, the previous owner, had contaminated during its work on a wide range of projects at the location.[3] Sun intentionally destroyed a vehicle maintenance building during the cleanup, and a question arose as to whether Sun took sufficient precautions to avoid any contamination of the soil from this action.[4] After the California Regional Water Control Board issued an order for cleanup amending a previous order and naming Taube-Koret as one of the dischargers, Taube-Koret complied "by performing the requisite environmental investigation, assessment, remedial actions, and removal of hazardous substances on its property."[5] Chubb reimbursed Taube-Koret for its cleanup expenditures, but it subsequently sued Ford and Sun asserting CERCLA claims "for cost recovery under section 107(a), subrogation under section 112(c), and contribution and declaratory relief under sections 113(f)-(g)," as well as supplemental state law claims.[6]

The district court dismissed the case with leave to amend.[7] Chubb then filed the operative amended complaint "renewing CERCLA claims under sections 107(a) and

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1 Chubb Custom Ins. Co. v. Space Sys./Loral Inc., 710 F.3d 946, 975 (9th Cir. 2013); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601–9675 (2014).

2 *Chubb Custom Ins. Co.*, 710 F.3d at 953.

3 *Id.*

4 *Id.* at 953-954.

5 *Id.* at 954.

6 *Id.* at 955.

7 *Id.* at 956.

112(c)."[8] The district court ruled that Chubb could not bring a subrogation cause of action under Section 112(c) of CERCLA and dismissed Chubb's claims with prejudice.[9] Chubb then appealed the decision to the Ninth Circuit Court of Appeals.[10]

The Decision of the Court of Appeals

The Ninth Circuit examined *de novo* the district court's dismissal for failure to state a claim.[11] The Ninth Circuit was tasked with analyzing subrogation under Section 112(c) and whether Chubb alleged that Taube–Koret was a "claimant" under Section 112(c) of CERCLA.[12]

Under Section 112(c), a "claimant" is "any person who presents a claim for compensation under this chapter,"[13] and a "claim" is "a demand in writing for a sum certain."[14] The court noted that it had previously held that "a 'claim' consistently refers to a demand for reimbursement from the Superfund, except for its first appearance in the second sentence of section 112(a), in which it refers more generally to a pre-claim/pre-action demand to the liable party."[15] The court concluded that anyone who presents a written demand for reimbursement of cleanup costs incurred for complying with the statute qualifies as a "claimant."[16] Further, the court found support for this reading in Section 113(g)(4), which states that "[n]o action based on rights subrogated pursuant to this section by reason of payment of a claim may be commenced under this title more than 3 years after the date of payment of such a claim."[17] The court then found that, because Chubb did not allege "that Taube–Koret has made such a demand on Defendants, the Superfund, or any other [potentially responsible party (PRP)]," Chubb did not meet the definition of "claimant."[18]

Because Chubb also asserted a Section 107(a) claim as the subrogee of Taube–Koret, the court also analyzed subrogation under that provision.[19] The court found no controlling or persuasive authority on the issue of whether a subrogated cost-recovery action was authorized by Section 107(a). Ultimately, the court held that "the presumption in favor of subrogation does not apply under CERCLA section 107(a) because there is clear congressional intent to the contrary, as evident from the statutory text of section 107(a); its interaction with section 112(c) . . . and CERCLA's overall statutory purpose."[20]

In reaching this conclusion, the court first analyzed the statutory text. "Section 107(a) states that Primary Responsible Parties (PRPs) are liable for 'necessary costs of

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8 *Id.* at 955.
9 *Id.* at 956.
10 *Id.*
11 *Id.*
12 *Id.* at 958.
13 42 U.S.C. § 9601(5) (2014).
14 *Id.* § 9601(4).
15 *Chubb Custom Ins. Co.*, 710 F.3d at 959 (citing Idaho v. Howmet Turbine Component Co., 814 F.2d 1376, 1380 (9th Cir. 1987)).
16 *Id.*
17 *Id.* (citing 42 U.S.C. § 9613(g)(4)).
18 *Id.*
19 *Id.* at 960.
20 *Id.* at 960-961.

response incurred,' which are 'consistent with the national contingency plan.'"[21] CERCLA defines key terms such as "response" and "national contingency plans," so the court relied on those statutory definitions.[22] Absent a CERCLA definition of the term "incur," the court used the ordinary meaning of this word in its analysis, "which is, '[t]o acquire or come into,' '[t]o become liable or subject to as a result of one's action,' or to 'bring upon oneself.'"[23] Relying on these definitions, the court held that "a subrogee—simply by stepping into the shoes of the insured via a reimbursement—cannot be liable for response costs under CERCLA, and thus cannot itself incur response costs."[24] Accordingly, Chubb could not circumvent Section 107(a) by "piggybacking on a subrogation principle under state law, which the plain language of section 107(a) does not support, or by inscribing a broader subrogation right by contract."[25]

The court then looked at case law to find evidence that supported this reading. It started with an indirect reference to the larger responsibilities of the party under CERCLA.[26] This reference helped to show that the application of the Section 107(a) remedies were for the party actually conducting the cleanup: "Private party remedial action is 'consistent with the [National Contingency Plan] if the action, when evaluated as a whole, is in substantial compliance with . . . [certain procedural requirements], and results in a CERCLA-quality cleanup.'"[27] A subrogee, when it provides reimbursement, is not liable for CERCLA response costs, and therefore has not incurred the response costs.[28] The Ninth Circuit relied heavily on the U.S. Supreme Court's opinion in *In United States v. Atl. Research Corp.*, which supported the idea that an insurer who is only obligated to reimburse the insured for cleanup costs, does not incur these expenses.[29] In that case, the Supreme Court concluded that "the plain language of subparagraph (B) [of CERCLA] authorizes cost-recovery actions by any private party, including PRPs."[30] The Supreme Court also noted that "any other person" under Section 107(a) is limited to "a private party that has itself incurred cleanup costs."[31] Instead, a party that has paid a claim to a liable party has only reimbursed other parties for costs that the liable party incurred.[32] "As a result, though eligible to seek contribution under Section 113(f)(1), the PRP cannot simultaneously seek to recover the same expenses under Section

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21 *Id.* at 961 (citing 42 U.S.C. § 9607(a)(4)(B)).
22 *Id.* (citing 42 U.S.C. § 9601(23)-(25)).
23 *Id.* (citing Am. Heritage Dictionary (4th ed. 2000)).
24 *Id.* at 962 (citing 42 U.S.C. § 9607(e)(1).
25 *Id.*
26 *Id.* at 961-63.
27 *Id.* at 961(citing *Carson Harbor Vill., Ltd. v. Cnty. of Los Angeles*, 433 F.3d 1260, 1265 (9th Cir. 2006) (quoting 40 C.F.R. § 300.700(c)(3)(i)).
28 *See id.* at 962 (citing 42 U.S.C. § 9607(e)(1) (stating that "[n]o indemnification . . . shall be effective to transfer from the [PRP] . . . to any other person the liability imposed under this section.")).
29 *See id.* at 963-64 (citing *United States v. Atl. Research Corp.*, 551 U.S. 128, 139 (2007) (observing that "by reimbursing response costs paid by other parties, the PRP has not incurred its own costs of response and therefore cannot recover under § 107(a).")).
30 *Id.* at 964 (citing *Atl. Research Corp.*, 551 U.S. at 136).
31 *Id.* at 963 (citing *Atl. Research Corp.*, 551 U.S. at 139).
32 *See id.*

107(a)."[33] The Ninth Cicruit noted that if Congress had intended for the Section 107(a) to allow broad subrogation claims, adding a narrow subrogation provision in Section 112(c) would be pointless.[34]

Policy Considerations for the Ninth Circuit's Decision on Subrogation Claims

The Ninth Circuit noted several policies that supported its limitations on claimants under Sections 107 and 112. Having an option available to a party that could not qualify as a claimant under Section 107(a) would undermine the claimant's ability to choose between Sections 107 and 112.[35] The court also noted that insurers could still use these sections because Section 107(e)(2) only explains that nothing in CERCLA shall impede the assertion of a proper subrogation claim.[36]

The Ninth Circuit emphasized that the lack of a universal right for insurers to sue would not bring an end to environmental insurance; in the two decades before the filing of the Chubb case, the lack of Section 107 and 112 remedies for insurers had no perceivable effect on the offering of environmental insurance policies.[37] Though Chubb argued that this limitation on insurance companies would undermine CERCLA efforts to promptly clean hazardous sites, the court rebutted that the statute plainly pointed to one of the PRPs (as well as the government) to carry the burden and then spread any costs of cleanup to all liable parties.[38] Furthermore, allowing equitable subrogation would undermine the goal of reining in CERCLA litigation by fostering settlement with PRPs.[39] Moreover, the court was also concerned with avoiding the possibility of double recovery by the insured, which the statute prohibits.[40] Relatively simple changes in the insurance contract would allow the insurance company to take over the cleanup in a way so it, instead of the insured, could then pursue a claim under Sections 107 or 112.[41] The court

33 *Id.* at 964 (citing *Atl. Research Corp.*, 551 U.S. at 139).

34 *Id.* at 966.

35 *See id.* at 955-66 (stating that "[e]nabling an insurer, as the claimant's subrogee, to proceed under section 107(a) for reimbursement of its insurance payment is far broader than what is contemplated under section 112(c), and therefore would impermissibly swallow—not complement—the subrogation provision").

36 *See id.* at 966 (noting that subrogation claims are not foreclosed, as long as Section 112(c) and relevant state law permit).

37 *See id.* at 969 (quoting William Pritchard Jr., Pollution Solution, American Agent & Broker (Feb. 2011), which states that "from 1990 to 2010, the number of companies offering environmental insurance products jumped from four to forty, which was a thousand percent growth over twenty years")).

38 *Id.* at 969-70.

39 *See id.* at 971 (citing Cal. Dep't of Toxic Substances Control v. City of Chico, 297 F. Supp. 2d 1227, 1235 (E.D. Cal. 2004) (stating that "[o]ne of the core purposes of CERCLA is to foster settlement through its system of incentives and without unnecessarily further complicating already complicated litigation")).

40 *Id.* at 970.

41 *Id.*

finally held that allowing the subrogees who were not claimants to recover under CERCLA was unfair because the statute expressly bars contractual assignment of liability.[42]

IMPACT

The Ninth Circuit's opinion on the ability of the insurer, as well as subrogees in general, to make claims for reimbursement establishes clear rules for the claims allowed under CERCLA. While it remains to be seen if the Fifth Circuit will arrive at the same conclusion, addressing this holding should form part of the Fifth Circuit's analysis in a similar future case as the *Chubb* decision makes a strong argument for restricting the category of claimants under Sections 107 and 112.

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STATE CASENOTE

SIERRA CLUB V. ANDREWS CNTY., ANDREWS INDUS. FOUND., AND ANDREWS CHAMBER OF COMMERCE, 418 S.W.3D 711 (TEX. APP.—EL PASO DEC. 6, 2013, PET. FILED)

In *Sierra Club v. Andrews County, Texas, Andrews Industrial Foundation, and Andrews Chamber of Commerce*, the El Paso Court of Appeals reversed an Andrews County trial court's denial of Sierra Club's motion to dismiss a claim of tortious interference with a lease brought by Andrews County, Andrews Industrial Foundation, and the Andrews Chamber of Commerce (collectively, "the County").[1] The dismissal was granted pursuant to the Texas Citizens' Participation Act (TCPA), Texas' anti-Strategic Lawsuit Against Public Participation (SLAPP) legislation.[2]

BACKGROUND & PROCEDURAL HISTORY

In January 2009, the Texas Commission on Environmental Quality (TCEQ) issued a license to Waste Control Specialists, LLC (WCS), which enabled WCS to build and

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42 *Id.* at 971 (citing 42 U.S.C. § 9607(e)(1) (stating that "[n]o indemnification . . . shall be effective to transfer from the [PRP] . . . to any other person the liability imposed under this section.").

1 Sierra Club v. Andrews Cnty., Andrews Indus. Found. & Andrews Chamber of Commerce, 418 S.W. 3d 711, 713 (Tex. App.—El Paso Dec. 6, 2013, pet. filed).

2 *Id.*; TEX. CIV. PRAC. & REM. CODE ANN. §§ 27.001-27.011 (West 2011).

operate a low-level radioactive waste disposal facility in Andrews County, Texas.[3] Sierra Club opposed the granting of this license and requested a contested case hearing on the matter, which the TCEQ denied.[4] Sierra Club appealed this denial, and in May 2012, a Travis County district court reversed and remanded the matter to the TCEQ for a contested case hearing.[5] Only days thereafter, Sierra Club initiated another suit against the TCEQ in Travis County, contesting the TCEQ's decision to allow WCS to "begin accepting low-level radioactive waste."[6]

In late June 2012, the County filed suit against Sierra Club in Andrews County district court claiming Sierra Club had tortiously interfered with the County's lease agreement with WCS.[7] The County sought two declaratory judgments: one regarding the validity of provisions in the lease between the County and WSC, and the other regarding the applicability of a Texas Water Code venue provision.[8] Pursuant to TCPA, Sierra Club moved for dismissal of the suit alleging the County's claims were in response to Sierra Club's exercise of its First Amendment right of free speech.[9] The trial court heard the motion but failed to rule within thirty days of the hearing, and the motion was thus denied by operation of law pursuant to Section 27.008(a) of the Texas Civil Practice and Remedies Code.[10] Sierra Club appealed.[11]

The Decision of the El Paso Court of Appeals

On appeal, pursuant to the TCPA, Sierra Club first had to establish by a preponderance of the evidence that the County's suit was brought in response to Sierra Club's exercise of its First Amendment rights.[12] If this burden is met, a motion to dismiss under the TCPA must be granted unless a plaintiff "establishes by clear and specific evidence a prima facie case for each essential element of the claim in question."[13] Under the TCPA, the court reviews trial court determinations *de novo*.[14]

The Court of Appeals first analyzed whether Sierra Club had shown by a preponderance of the evidence that the County's claims were "based on, related to, or in response to Sierra Club's exercise of its First Amendment rights."[15] Relying on several California cases, the County argued its claims were related to the lease and interpretation of a provision in the Texas Water Code, not Sierra Club's attempts to enjoin WCS's activi-

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3 *Andrews Cnty.*, 418 S.W. 3d at 713-14.
4 *Id.* at 714.
5 *Id.*; Sierra Club v. Tex. Comm'n on Envtl. Quality, D-1-GN-09-000894 (98th Dist. Ct., Travis County, Tex. May 14, 2012).
6 *Andrews Cnty.*, 418 S.W.3d at 714; Sierra Club v. Tex. Comm'n on Envtl. Quality, No. D-1-GN-12-001586 (98th Dist. Ct., Travis County, Tex. May 25, 2012).
7 *Andrews Cnty.*, 418 S.W.3d at 714.
8 *Id.*
9 *Id.*; Tex. Civ. Prac. & Rem. Code Ann. § 27.003 (West 2011).
10 *Andrews Cnty.*, 418 S.W.3d at 714-715; Tex. Civ. Prac. & Rem. Code Ann. § 27.008(a) (West Supp. 2013).
11 *Andrews Cnty.*, 418 S.W.3d at 715.
12 *Id.*; Tex. Civ. Prac. & Rem. Code Ann. §§ 27.003(a) & 27.005(b)(1).
13 Tex. Civ. Prac. & Rem. Code Ann. § 27.005(c).
14 *Andrews Cnty.*, 418 S.W.3d at 715; *see also* Rehak Creative Servs., Inc. v. Witt, 404 S.W.3d 716, 724–27 (Tex. App.—Houston [14th Dist.] 2013, pet. denied).
15 *Andrews Cnty.*, 418 S.W.3d at 716.

ties.[16] The court dismissed these arguments and found the basis for the County's claims was the pursuit of an injunction—a protected activity.[17] As such, Sierra Club had met its burden and the burden shifted to the County pursuant to TCPA Section 27.005(c) to demonstrate by clear and specific evidence a prima facie case in support of its declaratory judgment claims.[18]

Sierra Club challenged the justiciability of the County's declaratory relief claims.[19] Regarding the declaratory judgment claim concerning the WCS-County lease, the court found Sierra Club's attempts to enjoin operation of the radioactive waste facility had nothing to do with the validity or interpretation of the lease between the County and WCS.[20] The court found that there was no justiciable controversy between the County and WCS concerning the lease, and that the County had thus failed to establish a "prima facie case" by "clear and specific evidence" that it was entitled to a declaratory judgment regarding provisions in its lease with WCS.[21]

Pursuant to Texas Water Code Section 7.357, the County also sought a declaration that mandatory venue for suits seeking injunctive relief against WCS was in Andrews County.[22] The County admitted that the purpose of the declaration sought was to direct Sierra Club's future actions, and the Court accordingly found that the relief sought concerned "future, hypothetical situations" and that no justiciable controversy existed involving "a genuine conflict of tangible interests."[23]

Lastly, the court examined the County's tortious interference claim.[24] Under the TCPA, the County had to make a prima facie case by offering clear and specific evidence of each element.[25] The court found that the County had established nothing more than the existence of a valid contract between the County and WCS, a contention Sierra Club did not dispute, and that the County and WCS failed to adduce evidence of actual damages or loss.[26]

Having determined the County failed to make a prima facie case for any of its claims, the Court went on to award Sierra Club attorneys' fees and expenses pursuant to Section 27.009(a)(1) of the Texas Civil Practice and Remedies Code; however, the court stopped short of sanctioning the County.[27] When a case is dismissed pursuant to the TCPA, sanctions are permitted to "deter the party who brought the legal action from bringing similar actions."[28] The court analyzed the County's claims under Rule 13 of the

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16 *Id.*
17 *Id.* at 717.
18 *Id*; TEX. CIV. PRAC. & REM. CODE ANN. § 27.005(c).
19 *Andrews Cnty.*, 418 S.W.3d at 717.
20 *Id.* at 718.
21 *Id.*
22 *Id.*; TEX. WATER CODE ANN. § 7.357 (West 1997) (allowing permissive venue in the county where the alleged violation occurred or is about to occur).
23 *Andrews Cnty.*, 418 S.W.3d at 718-19.
24 *Id.* at 719.
25 *Id.* (citing TEX. CIV. PRAC. & REM. CODE ANN. § 27.005(c) (West 2013)).
26 *Id. at* 719-20.
27 *Andrews Cnty.*, 418 S.W.3d at 721-22. Sierra Club was awarded $49,980 in legal fees and $9,001.62 in expenses. The court also awarded $7,500 in appellate legal fees and conditional appellate fees of $17,000 if Sierra Club prevailed in the Supreme Court.
28 *Id.* at 721 (citing TEX. CIV. PRAC. & REM. CODE ANN. § 27.009(a)(2)).

Texas Rules of Civil Procedure, which concerns groundless pleadings brought in bad faith or for the purpose of harassment.[29] Sierra Club's sanctions request was remanded to the lower court for additional proceedings.[30]

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29 *Andrews Cnty.*, 418 S.W.3d at 721; Tex. R. Civ. P. 13.
30 *Andrews Cnty.*, 418 S.W.3d at 722.

PREEMPTION AND STATE COMMON LAW NUISANCE CLAIMS — A LOOK AT THE ARGUMENTS

On February 20, 2014, GenOn filed a petition for certiorari asking the Supreme Court to reverse a Third Circuit ruling that held two savings clauses in the Clean Air Act (CAA) as preserving state tort actions against individuals.[1] This case presents a recurring question that the Court left open in *Am. Elec. Power Co. v. Conn.*, 131 S. Ct. 2527, 2540 (2011): whether the CAA preempts state nuisance claims under state common law that imposes different emissions restrictions from those adopted pursuant to the Act.[2] Indeed, these issues are explored thoroughly by Scott Armstrong in his Student Note in this issue of the Journal.[3] Although focused on the CAA, the arguments offered in support of or against preemption could reasonably extend to other areas where federal preemption of state and local environmental regulations is raised.

BACKGROUND

The parties' arguments in this case frame different positions regarding how air pollution in the United States should be controlled. Petitioner argues that the federal CAA sets forth a comprehensive system of cooperative federalism under which a unitary permitting program governs emissions levels by each source, and under which the exclusive methods for controlling air pollution are specified.[4] Petitioner posits that it is crucial to have nationwide, uniform emissions standards.[5] Respondents assert that the Act's system is supplemented by common law remedies, such as public nuisance, under which emissions can be controlled prospectively by equitable relief, and influenced retrospectively by awards of money damages.[6] They insist that such relief is available even when regulated entities are in full compliance with the CAA.[7]

On August 20, 2013, the United States Court of Appeals for the Third Circuit reversed the lower court's decision and held that the Clean Air Act does not preempt private property owners' putative class action tort law claims.[8]

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1 Bell v. Cheswick Generating Station, 734 F.3d 188 (3rd Cir. 2013), *cert. denied*, 134 S. Ct. 2696 (2014) (No.13-1013).

2 Petition for Writ of Certiorari, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 709667, at *2.

3 Scott Armstrong, *The Continuing Necessity of Common Law Torts for Environmental Harms: Why the Clean Air Act Should Not Preempt State Law Claims Against Stationary Sources*, 44 TEX. ENV. L.J. ___ (Oct. 2014).

4 *Bell*, 734 F.3d at 197 (3rd Cir. 2013).

5 *Id.*

6 *Id.* at 192.

7 *Id.*

8 *Id.* at 197.

THE PETITION

The petitioner, GenOn Power Midwest, L.P. (GenOn), operates Cheswick Generating Station.[9] The respondents are Kristie Bell and Joan Luppe (Bell).[10] GenOn contends that the certiorari should be granted in order to prevent confusion and to follow precedent.[11] It emphasizes the significance of the question presented in this case as the decision in the lower court is damaging to the interests in uniformity and predictability the Act was structured to advance.[12] The underlying preeminent goal of the Act is to ensure some level of uniformity, certainty, and predictability in the application of air emissions standards throughout the country.[13] GenOn argues that this goal will be "fatally" undermined if state common law nuisance claims are allowed to proceed as they turn to a court to create and enforce different emissions standards based on their own assessments of what is reasonable under the circumstances.[14] Such practice will not only result in inconsistent standards applied to regulated entities, even within a single jurisdiction, but also "deepens the split among federal and state courts."[15]

Furthermore, GenOn argues the Third Circuit's decision is inconsistent with the Supreme Court's precedent in *Am. Elec. Power Co.*[16] The specific issue presented in *Am. Elec. Power Co.* was whether "the CAA and the EPA actions it authorizes displace any federal common law right."[17] This Court held that any such common law claims are displaced, and the Act creates a precise and carefully balanced relationship between federal regulatory bodies, state regulatory bodies, and courts.[18] Within this relationship, courts have only a secondary role of reviewing the expert agencies' decisions and ensuring compliance with statutory requirements.[19] The Court recognized that "the expert agency is surely better equipped to do the job than individual district judges issuing ad hoc, case-by-case injunctions."[20] GenOn contends that because the only distinction between *Am. Elec. Power Co.* and the case at bar is that the claims here are "fashioned as arising under state common law," the Third Circuit should have precluded state common law nuisance claims for the same reason as the Court's decision.[21] Petitioner strongly argues that the Third Circuit misread the savings clause of the Clean Air Act and misinterpreted this Court's precedents.[22]

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9 Petition for Writ of Certiorari, *supra* note 2, at *II.
10 *Id.*
11 *Id.* at *3.
12 *Id.* at *4.
13 Am. Elec. Power Co. v. Conn., 131 S. Ct. 2527, 2539 (2011).
14 Petition for Writ of Certiorari, *supra* note 2, at *15.
15 *Id.* at *22.
16 *Id.*
17 *Am. Elec. Power Co.*, 131 S. Ct. at 2537.
18 *Id.*
19 *Id.* at 2539-40.
20 Petition for Writ of Certiorari, *supra* note 2, at *23-*24.
21 *Id.* at *24.
22 *Id.* at *25.

Amicus Curiae

On March 26, 2014, five Briefs of Amicus Curiae were filed in support of the petitioner. The first brief was filed by the coalitions and trade organizations whose members include organizations and companies doing business in the United States that are affected by the public nuisance litigation governed by the Supreme Court's decisions.[23] As regulated entities, many members operate under permits issued under the authority of the CAA.[24] The first amicus brief contends that the clear emissions standards specified pursuant to the CAA's permitting programs are essential to successful business planning and operations.[25] Without the "reliability, predictability, certainty, finality, and stability that CAA permits provide," businesses will not be able to make investments that improve and expand their facilities and empower the development and improvement of their products.[26] The role of CAA is to provide "clear regulatory standards to guide the regulated community's conduct, strong incentives to conform to those standards, and a secure permitted environment" to the regulated entities.[27] The brief describes the common law public nuisance as "blurred," "wilderness of law," "standardless" and unsuitable for controlling air pollution.[28] Amici also makes similar argument as the petitioner, including that it is logical and essential for the Court to adopt the *Am. Elec. Power Co.* decision, which rejected an attempt to use public nuisance litigation under federal common law to control air pollution, in the context of the state common law.[29]

The second brief of amicus curiae was filed by the Utility Air Regulatory Group (UARG), a non-profit, unincorporated trade association of individual electric utilities and national industry trade associations that has a direct interest in this case.[30] Its members would be exposed to liability under state common law for activities authorized by the CAA permits should the decision below stands.[31] UARG is worried that if state nuisance claims are allowed to proceed, they would make emissions control requirements "unpredictable and unmanageable, open the door for a host of new litigation collaterally attacking federal and state requirements, and invite courts to usurp the role of expert agencies."[32] These problems would pose difficulties for regulated entities to "secure financing and make decisions of future operations", and "discourage investment in new entities to take the place of those forced out of business by tort suits."[33] The additional cost of operating in an atmosphere of unsettled legal obligations and unpredictable emissions standards, UARG contends, would be passed on to consumers.[34] Furthermore,

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23 Brief of Nat'l Ass'n of Mfr. et al. as Amici Curiae Supporting Petitioner, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1260137, at *1.
24 *Id.*
25 *Id.* at *7.
26 *Id.* at *10.
27 *Id.*
28 *Id.* at *12.
29 *Id.* at *16.
30 Brief of Amicus Curiae Util. Air Regulatory Grp. in Support of Petitioner, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1260138, at *1.
31 *Id.*
32 *Id.* at *6.
33 *Id.* at *8.
34 *Id.*

UARG contends split decisions in other federal and state courts to be the reason for the Supreme Court to hear this case.[35] Lastly, UARG makes similar argument as the petitioner that the Third Circuit's decision conflicts with relevant Supreme Court precedent, particularly with *Am. Elec. Power Co.*[36]

The third amicus brief was filed by Chamber of Commerce, American Fuel & Petrochemical Manufacturers, and American Petroleum Institute.[37] The brief puts forward similar arguments made by the petitioner that the Third Circuit's decision is going to directly interfere with the "aims of the CAA and its application through the permitting process."[38] The decision will inevitably impose "intolerable uncertainty and costs" on the regulated business community.[39] The brief reasoned that when there are state tort liabilities on emissions that were permitted by the CAA, the regulated businesses will not be able to "plan, invest, and prepare" well in advance of implementation.[40] Furthermore, the brief contended that allowing non-expert judges and juries to handle the "complex task" of environmental, public health, and scientific evaluations is not in the public's best interest.[41]

American Tort Reform Association (ATRA) filed the last amicus brief in support of the petitioner. The Association's interest lies in ensuring that courts follow "constitutional and traditional tort law principles."[42] The brief urges the Court to hear the case and address the anticipated state law issue left open in *Am. Elec. Power Co.*.[43] ATRA wants the Court to reverse the Court of Appeal's decision that is not only "out of step" with the precedent in *Am. Elec. Power Co.*, but also precludes Congress's purpose in CAA to allow experts, not the judges, to largely make judgment to permit omissions.[44]

The last amicus brief was filed by the Voice of the Defense Bar, an international association of defense lawyers who represent individuals, corporations, insurance carriers, and local governments involved in civil litigation.[45] The brief asks the Court to grant certiorari in order to protect the values offered by CAA: predictability and consistency of outcomes in litigations, limitation of potential lawsuits, and protection of reliance interests.[46] It adds to the petitioner's assertion that state nuisance tort law is a "vague and malleable theory inconsistent with the comprehensive provisions of the [Clean Air]

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35 *Id.* at *16.
36 *Id.* at *19.
37 Brief of Amici Curiae Chamber of Commerce of the U.S. et al. Supporting Petitioner, *Bell v. Cheswick Generating Station,* 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1275186, at *1.
38 *Id.* at *4.
39 *Id.* at *12.
40 *Id.* at *15.
41 *Id.* at *17.
42 Brief of Amici Curiae Am. Tort Reform Ass'n in Support of Petitioner, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1275187, at *1.
43 *Id.* at *3.
44 *Id.* at *16.
45 Brief of Amici Curiae DRI – The Voice of the Def. Bar in Support of Respondents, *Bell v. Cheswick Generating Station*, 734 F.3d 188 (3rd Cir. 2013) (No. 13-1013), 2014 WL 1275188, at *1. Despite the title of the brief indicating it is filed in support of the respondents, the content actually supports the petitioner's position.
46 *Id.* at *3.

Act." It argues the Court should grant certiorari so that it can affirm the Act's preemption power over state common law nuisance claims that provoke inconsistency with "Congress's intent to create comprehensive, uniform, regulatory provisions addressing air pollution" by enacting the CAA.[47]

Looking Ahead

On June 2, 2014, the Supreme Court denied certiorari.[48] Thus, whether the CAA preempts state nuisance claims under state common law that imposes different emissions restrictions from those adopted pursuant to the Clean Air Act remains an open issue.

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47 *Id.* at *11.

48 Bell v. Cheswick Generating Station, 134 S. Ct. 2696 (2014) (No.13-1013).

TCEQ AUTHORITY: *GALILEE PARTNERS, L.P. V. TEX. COMM'N ON ENVTL. QUALITY* AND *LA VILLA INDEP. SCH. DIST. V. CITY OF LA VILLA, TEXAS*

The Texas Commission on Environmental Quality (TCEQ) has recently been involved in two cases regarding the Texas Water Code, specifically Sections 13.041 and 51.021. These two cases, *Galilee Partners, L.P. v. Tex. Comm'n on Envtl. Quality*[1] and *La Villa Indep. Sch. Dist. v. City of La Villa, Texas*,[2] represent significant developments on the authority of the TCEQ.

GALILEE PARTNERS, L.P. V. TEX. COMM'N ON ENVTL. QUALITY

The 11th Court of Appeals affirmed a district court ruling in favor of the TCEQ's decision to deny Galilee's application for the Maypearl Water Control and Improvement District No. 1 in Ellis County.[3] Though Galilee noted that the TCEQ had never before denied an application for a water improvement district based upon a finding that the proposed district would not be financially feasible, the Court found the TCEQ to be authorized to take such action under Section 51.021 of the Texas Water Code.[4] In effect, this ruling recognizes the authority of the TCEQ to analyze the economic feasibility of any proposed district prior to making a decision on whether or not to accept an application.

Galilee sought the TCEQ's approval of a plan to create a water control and improvement district.[5] Galilee's purpose for the proposed district was to provide for the development of "affordable workforce housing for the growing Dallas-Fort Worth metro-plex area."[6] This would have included over 700 small residential sites, as well as a school and an area for commercial development.[7] Both the Ellis Prairie Soil and Water Conservation District and Ellis County filed protests to the application by Galilee, and the case was assigned to an Administrative Law Judge (ALJ) for a hearing.[8] Upon the recommendation of the ALJ, the TCEQ denied Galilee's application, and the district court affirmed the TCEQ's decision.[9] In denying Galilee's application for the proposed District,

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1 Galilee Partners, L.P. v. Texas Comm'n on Envtl Quality, No. 11–12–00033–CV, 2014 WL 358287 (Tex. App.—Eastland Jan. 31, 2014, no pet.) (mem. op.).

2 Tex. Comm'n on Envtl. Quality, *Request for Emergency Order filed by La Villa Indep. Sch. Dist.*, TCEQ Docket No. 2013-2211-UCR; Marked Agenda, TCEQ Public Meeting Jan. 15, 2014, Item No. 2, *available at* http://www.tceq.state.tx.us/assets/public/comm_exec/agendas/comm/marked/2014/140115.Mrk.pdf [hereinafter "La Villa ISD Request"].

3 *Galilee Partners, L.P.*, 2014 WL 358287, at *1.

4 *Id.* at *4-*5.

5 *Id.* at *1.

6 *Id.*

7 *Id.*

8 *Id.*

9 *Id.*

the TCEQ evaluated issues surrounding the economic success of such a development.[10] Although the executive director of the TCEQ was originally in favor of this proposal, the collapse of the subprime mortgage industry and housing crisis that followed forced a change in his position.[11] At the time of the denial of the application, the TCEQ found that "Galilee had failed to meet its burden to prove there was a need for the District and . . . the District was not economically feasible . . . ."[12]

On appeal, Galilee argued that the TCEQ lacked the authority to deny an application "based on a finding that a proposed district is not immediately financially feasible or that the property covered by the proposed district is not marketable as proposed."[13] According to Galilee, the TCEQ had never exercised such "newfound authority,"[14] even though the Texas Water Code provides that every application must provide a "statement . . . of the work to be done and the necessity and feasibility of the project"[15] as well as a "statement of the estimated cost of the project."[16]

To resolve this issue, the Court looked at Section 51.021 of the Texas Water Code, which governs the actions of the TCEQ following the contested case hearing. This section instructs that the TCEQ must grant the petition requesting the creation of a district if it appears, among other things, that the organization of the district is feasible and practicable and there is a public necessity or need for the district.[17] The TCEQ construed this to mean that the proposed district must be economically feasible, while Galilee argued that the district's organizational feasibility should not be equated with the immediate real estate market feasibility.[18]

The Court disagreed with Galilee, holding that "the statutes not only authorize the Commission to determine where there is a public necessity or need for the district, but also require it to make such a determination."[19] Otherwise, there would be little reason for Section 51.014, which requires statements on the necessity and feasibility of the project.[20] Finding that, due to the subprime mortgage crash and housing crisis, there was no market for the property planned by the development and thus no need for the district, the TCEQ's denial was permissible.[21] Further, the Court overruled Galilee's other grounds for appeal, which were based on the evidence introduced by the TCEQ at the district court and the TCEQ's purported failure to consider the public benefit of the proposed District.[22]

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10 *See id.* at *3.
11 *Id.*
12 *Id.*
13 *Id.* at *2.
14 *Id.*
15 TEX. WATER CODE ANN. § 51.014(5) (West 2008).
16 *Id.* § 51.014(6).
17 *Id.* § 51.021(a)(1).
18 *See Galilee Partners, L.P.*, 2014 WL 358287, at *3-*4.
19 *Id* at *4.
20 TEX. WATER CODE ANN. § 51.014(5)-(6).
21 *Galilee Partners, L.P.*, 2014 WL 358287, at *5.
22 *Id.*

La Villa Independent School District v. City of La Villa, Texas

The second case stems from a request by the La Villa Independent School District (La Villa ISD) for "the issuance of an emergency order to compel the City of La Villa to provide continuous and adequate water and sewer service in Hidalgo County, Texas, pursuant to Texas Water Code Section 13.041(d) and Title 30, Section 291.14(a) of the Texas Administrative Code."[23] Section 13.041(1) of the Water Code authorizes the TCEQ to issue emergency orders:

> to compel a water or sewer service provider that has obtained or is required to obtain a certificate of public convenience and necessity to provide continuous and adequate water service, sewer service, or both, if the discontinuance of the service is imminent or has occurred because of the service provider's actions or failure to act . . . .

La Villa ISD sought an emergency order to restore water and sewer service to their buildings following a shut-off by the City of La Villa, which occurred after a dispute over an alleged outstanding balance of approximately $57,212.69.[24]

The TCEQ elected to take no action on La Villa ISD's request for an emergency order.[25] The TCEQ concluded that "the Commission lacks jurisdiction over the underlying billing dispute between the City's municipally-owned utility and any retail customer within the corporate limits of the City."[26] Because the central problem between La Villa ISD and the City of La Villa was the alleged outstanding balance, the TCEQ does not have the ability to override the City's decision to cut off water. Further, the TCEQ declined to take action on La Villa ISD's request because the TCEQ's authority to issue an emergency order when the City did not hold a certificate of convenience and necessity (CCN) was "questionable."[27] Finally, notwithstanding the extensive detailing of potential threats to public health listed by La Villa ISD in their application for an emergency order,[28] the TCEQ found that the request did not demonstrate an imminent threat to public health and safety.[29]

Conclusion

These two cases serve to highlight the authority of the TCEQ regarding water districts and retail public utilities. In *Galilee*, the Commission's denial of Galilee's application for a new water district affirmed the TCEQ's authority to consider a potential project's financial feasibility prior to making a decision on an application.[30] In *La Villa ISD*, on the other hand, the TCEQ noted a limit on its own authority when dealing with

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23 La Villa ISD Request, *supra* note 2.
24 *Id.*
25 *Id.*
26 *Id.*
27 *Id.*
28 La Villa Independent School District's First Amended Application for Emergency Order at 2-3, La Villa Independent School District v. City of La Villa, Texas, TCEQ Docket No. 2013-2211-UCR (2014), *available at* http://www7.tceq.state.tx.us/uploads/eagendas/Misc/2013-2211-UCR-misc.pdf.
29 La Villa ISD Request, *supra* note 2.
30 *See Galilee Partners, L.P.*, 2014 WL 358287, at *4-*5.

a city's municipally-owned utility, particularly when the City does not hold a water CCN.[31]

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31 *See* La Villa ISD Request, *supra* note 2.

DISPUTE OVER THE RIO GRANDE: *TEXAS V. NEW MEXICO AND COLORADO*

For a few years, Texas and New Mexico have been in a legal dispute over what water rights each have over the Rio Grande River under the interstate Rio Grande Compact. In 2013, Texas brought this dispute to the United States Supreme Court in a petition for leave to file a complaint, arguing that only the Supreme Court has original jurisdiction.[1] On January 27, 2014, the Court granted Texas's motion and allowed New Mexico to file a motion to dismiss pursuant to Rule 12(b)(6) of the Federal Rules of Civil Procedure.[2] While the Supreme Court granted the United States' motion to intervene as a plaintiff,[3] further filings are pending.

HISTORICAL BACKGROUND

One cannot understand the history of the Rio Grande Compact without looking at the Rio Grande Project, which influenced the drafting of the Compact. In 1902, Congress enacted the Reclamation Act, which authorized funding for irrigation works in New Mexico (a U.S. Territory at the time), along with other states.[4] Subsequently, in 1905, Congress extended the Act to include the area of Texas bordering the Rio Grande river and later the entirety of Texas, thereby allowing irrigation of water from the future Elephant Butte reservoir to Texas.[5]

In 1904, the U.S. Bureau of Reclamation ("BuRec") proposed to build a dam at Elephant Butte in New Mexico and to distribute water from the newly created reservoir to Texas and New Mexico in amounts proportional to the irrigable lands in each state.[6] This dam was part of the Rio Grande Project, and construction started in 1908 and was completed in 1916.[7]

In 1906, the BuRec into contracts with the Elephant Butte Irrigation District (EBID) in New Mexico and the El Paso County Water Improvement District No.1 (EPCWID) in Texas for the irrigation of 155,000 acres of land (67,000 acres in Texas and 88,00 acres in New Mexico) from the soon-to-be Elephant Butte reservoir.[8] The two

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1 Motion for Leave to File Complaint, Complaint, and Brief in Support of Motion for Leave to File Complaint, Texas v. New Mexico & Colorado, 2013 U.S. S. Ct. Briefs LEXIS 5526, at *2-*3 (Jan. 8, 2013) (No. 141) [hereinafter Brief for Petitioner].

2 *Texas*, 134 S. Ct. 1050 (Jan. 27, 2014).

3 *Id.*, 134 S. Ct. 1783 (Mar. 31, 2014).

4 43 U.S.C.A. § 391 (West 2014) (establishing the "reclamation fund," which funded irrigation works in the States and Territories).

5 *See Rio Grande Project*, U.S. DEP'T INTERIOR, BUREAU OF RECLAMATION, *available at* https://www.usbr.gov/projects/Project.jsp?proj_Name=Rio+Grande+Project (last updated May 16, 2011).

6 *Id.*

7 *Id.*

8 Brief for the United States as Amicus Curiae, Texas v. New Mexico & Colorado, 134 S. Ct. 1050, (Dec. 10, 2013) (No. 141) 2013 WL 6917383, at *5 [hereinafter Brief for Solicitor

districts, along with the U.S. Assistant Secretary of the Interior, signed these contracts in 1938 (hereinafter, "the Reclamation contracts") to distribute water in times of shortage in proportion to the amount of acreage they owned (67/155 for New Mexico and 88/155 for Texas).[9] The BuRec calculates diversion allocations on the same proportions to this day.[10]

In 1938, Texas, New Mexico, and Colorado signed the Rio Grande Compact with the intent "to remove all causes of present and future controversy among these States . . . with respect to the use of the waters of the Rio Grande above Fort Quitman, Texas" and "for the purpose of effecting an equitable apportionment of such waters."[11] Most importantly, the Compact required New Mexico to deliver a certain quantity of water to San Marcial, a gauging station in New Mexico upstream from Elephant Butte.[12]

THE CURRENT CONFLICT

The current conflict between New Mexico and Texas centers on whether or not New Mexico's actions raise an issue under the Compact that only the U.S. Supreme Court can resolve.[13] It is the general rule that the Supreme Court has original jurisdiction to resolve disputes involving interstate compacts.[14] However, the Court has held that the claim must be serious and there must not be an available alternative forum.[15]

Texas alleged in its motion for leave to file a complaint that New Mexico "has increasingly allowed the diversion of surface water, and has allowed and authorized the extraction of water from beneath the ground, downstream of Elephant Butte Dam."[16] Texas further contended that such diversion "adversely affects the delivery of water intended for use in the Rio Grande Project" and thus violates the Rio Grande Compact.[17] New Mexico, on the other hand, alleged that it is fully complying with the Compact and that the real nature of Texas's complaint is that Texas water users are not receiving water under the Reclamation contracts with the federal government.[18] New Mexico further claimed that the case should be dismissed because this is not an issue under the

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General] (citing *Regional Planning Part VI – The Rio Grande Joint Investigation in the Upper Rio Grande Basin in Colorado, New Mexico, and Texas* 1936-1937, Nat'l Res. Comm. 83 (Feb. 1938), *available at* https://archive.org/details/regionalplanning1938riogranderich).

9 *Id.*

10 *See Supplemental Environmental Assessment, Implementation of Rio Grande Project Operating Procedures, New Mexico and Texas*, U.S. DEP'T INTERIOR, BUREAU OF RECLAMATION 10, 13 (June 21, 2013), *available at* http://www.usbr.gov/uc/albuq/envdocs/ea/riogrande/op-Proced/Supplemental/Final-SuppEA.pdf (noting that taking no action to change the operation of the Project would retain the 67/155 and 88/155 proportional distribution between EPCWID and EBID respectively).

11 TEX. WATER CODE ANN. § 41.009 (West 2013).

12 *Id.*

13 *See* Brief for Petitioner, *supra* note 1, at *2-*3.

14 Texas v. New Mexico, 462 U.S. 554, 567 (1983) (citing U.S. CONST. art. III, § 2, cl. 1).

15 Mississippi v. Louisiana, 506 U.S. 73, 77 (1992).

16 Brief for Petitioner, *supra* note 1, at *9.

17 *Id.*

18 New Mexico's Brief in Opposition to Texas' Motion For Leave to File Complaint, Texas v. New Mexico & Colorado, 134 S. Ct. 1050 (Mar. 11, 2013) (No. 141) 2013 WL 6917385, at *12-*13 [hereinafter Brief for Respondent].

Compact, and that, even if it were, the U.S. Supreme Court does not have original jurisdiction.[19]

Texas's Arguments

Before Texas can argue the Supreme Court has original jurisdiction, there is a threshold question as to whether or not an issue can be raised under the Compact because New Mexico argues that it is not obligated to deliver water beyond the Elephant Butte Reservoir.[20] On this preliminary issue, Texas argues that the express terms of the Compact illustrate that the parties intended New Mexico's obligations to extend beyond Elephant Butte.[21] This argument is supported by Supreme Court precedent stating that the Court prioritizes the express terms of a Compact to determine the intent of the parties.[22]

The Solicitor General points out in his brief that one of the Compact's purposes was to remove all causes of present and future controversy among the compacting states "with respect to the use of the waters of the Rio Grande *above Fort Quitman, Texas*."[23] Under the Solicitor General's argument, the Reclamation contracts are part of the Compact.[24] As support, the Solicitor General appeals to a letter the Compact Commissioner wrote in 1938 to an attorney inquiring as to why the Compact did not specify an amount of water to be delivered to Texas.[25] The Commissioner replied that "the question of the division of the water released from Elephant Butte reservoir is taken care of by contracts between the districts under the Rio Grande Project and the Bureau of Reclamation."[26] Thus, Texas argues that a diversion of surface water and groundwater downstream from the Elephant Butte Reservoir violates the intent of the Compact drafters insofar as it affects compliance with the Reclamation contracts.

Another argument the Solicitor General makes on behalf of Texas is that it would be absurd for Texas to sign a compact with New Mexico where New Mexico could deplete all of the water it delivered to Elephant Butte as soon as the water started moving downstream.[27] This would leave Texas with no water at all and would raise the question as to why Texas would enter a compact where it receives no benefit.

New Mexico's Arguments

New Mexico's main argument is that there is no obligation expressly stated under the Compact for New Mexico to deliver water or allow water to flow unimpeded to the Texas-New Mexico border, and thus Texas should be looking at the Reclamation con-

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19 *Id.* at *9-*13.
20 Brief for Respondent, *supra* note 18, at *19-*21.
21 *See* Brief for Petitioner, *supra* note 1, at *6-*7.
22 Tarrant Reg'l Water Dist. v. Hermann, 133 S. Ct. 2120, 2130 (2013).
23 Brief for Solicitor General, *supra* note 8, at *6 (citing Tex. Water Code Ann. § 41.009) (emphasis added).
24 *See id.* at *13-*14.
25 *Id.* at *14 (citing Letter from Frank B. Clayton, Compact Commissioner for Texas, to Sawnie Smith, Senior Partner at Smith & Hall (Oct. 4, 1938)).
26 *Id.*
27 *Id.*

tracts, where the federal government is responsible for delivering the water.[28] As Supreme Court precedent suggests that the Court looks primarily to the express terms of an interstate compact to determine the intent of the parties,[29] the absence of such express terms weighs against New Mexico. If there is no intent, then no issue is raised under the Compact.

Nonetheless, New Mexico presents two alternative arguments to support its position. The first argument looks to the Compact itself to show the drafters' lack of intent for New Mexico to deliver water to the Texas-New Mexico border. Specifically, New Mexico points to Article III of the Compact, which expressly states that Colorado must deliver water to the Colorado-New Mexico state line.[30] In contrast, no such provision exists in Article IV, which discusses New Mexico's delivery obligations.[31] Rather, Article IV states that New Mexico's delivery point is to Elephant Butte, which is located 105 miles north of the state line, so the drafters must not have intended to include a delivery requirement at the border.[32]

The second argument points to an alleged inconsistency in Texas's argument that New Mexico must allow water to flow to the Texas-New Mexico border unimpeded. Texas contends that the water under the Compact is delivered to Elephant Butte, allocated according to the Rio Grande Project, and is subject to the relevant contract arrangements.[33] Once New Mexico delivers this water, it relinquishes its rights to these contractual arrangements involving the federal government.[34] Given this state of affairs, Texas asserts that New Mexico is still responsible for ensuring the water flows to the Texas-New Mexico border unimpeded.[35] New Mexico finds inconsistent that Texas argues that New Mexico is legally obligated to allow water to flow unimpeded after the point where its legal obligation to handle the water has been terminated under the Compact.[36] New Mexico also argued that the issues raised by Texas are being litigated in alternative forums, and thus can be vindicated in other ongoing cases.[37]

LOOKING AHEAD

The main thrust of New Mexico's and Texas's arguments will likely focus on contract interpretation and whether the issue of violation arises under the Rio Grande Compact or the Reclamation contracts. The force of Texas's arguments hinge on the Compact drafters' intent to read the Compact together with the Reclamation contracts. On the other side, the force of New Mexico's arguments rest on establishing that the drafters did not intend the two documents to be read together and that this issue is solely a concern under the Reclamation contracts. If Texas succeeds in establishing that the

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28 Brief for Respondent, *supra* note 18, at *13.
29 Tarrant Reg'l Water Dist. v. Hermann, 133 S.Ct. 2120, 2130 (2013).
30 Brief for Respondent, *supra* note 18, at *12 (citing TEX. WATER CODE ANN. § 41.009).
31 *Id.*
32 *Id.*
33 Brief for Petitioner, *supra* note 1, at *2-*3.
34 *See id.*
35 *Id.* at *3.
36 Brief for Respondent, *supra* note 18, at *17.
37 *Id.* at *22.

issue raised arises under the Compact, then it will have to establish that its issue is serious and that there exists no alternative forum to resolve this dispute.[38]

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38 Mississippi v. Louisiana, 506 U.S. 73, 77 (1992).

CHUBB CUSTOM INS. CO. V. SPACE SYS./LORAL INC., 710 F.3D 946 (9TH CIR. 2013)

In *Chubb Custom Ins. Co. v. Space Sys./Loral Inc.*, the Ninth Circuit issued a ruling that more narrowly defined the ability of insurers to make a claim under Sections 112 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).[1]

FACTS AND PROCEDURAL BACKGROUND

Chubb Custom Insurance Company ("Chubb") issued an environmental insurance policy to Taube-Koret Campus for Jewish Life ("Taube-Koret") for real property that Taube-Koret purchased from Sun-Microsystems ("Sun").[2] Sun had begun the cleanup of lands that Ford Aerospace, the previous owner, had contaminated during its work on a wide range of projects at the location.[3] Sun intentionally destroyed a vehicle maintenance building during the cleanup, and a question arose as to whether Sun took sufficient precautions to avoid any contamination of the soil from this action.[4] After the California Regional Water Control Board issued an order for cleanup amending a previous order and naming Taube-Koret as one of the dischargers, Taube-Koret complied "by performing the requisite environmental investigation, assessment, remedial actions, and removal of hazardous substances on its property."[5] Chubb reimbursed Taube-Koret for its cleanup expenditures, but it subsequently sued Ford and Sun asserting CERCLA claims "for cost recovery under section 107(a), subrogation under section 112(c), and contribution and declaratory relief under sections 113(f)-(g)," as well as supplemental state law claims.[6]

The district court dismissed the case with leave to amend.[7] Chubb then filed the operative amended complaint "renewing CERCLA claims under sections 107(a) and 112(c)."[8] The district court ruled that Chubb could not bring a subrogation cause of action under Section 112(c) of CERCLA and dismissed Chubb's claims with prejudice.[9] Chubb then appealed the decision to the Ninth Circuit Court of Appeals.[10]

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1 Chubb Custom Ins. Co. v. Space Sys./Loral Inc., 710 F.3d 946, 975 (9th Cir. 2013); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601–9675 (2014).
2 *Chubb Custom Ins. Co.*, 710 F.3d at 953.
3 *Id.*
4 *Id.* at 953-954.
5 *Id.* at 954.
6 *Id.* at 955.
7 *Id.* at 956.
8 *Id.* at 955.
9 *Id.* at 956.
10 *Id.*

THE DECISION OF THE COURT OF APPEALS

The Ninth Circuit examined *de novo* the district court's dismissal for failure to state a claim.[11] The Ninth Circuit was tasked with analyzing subrogation under Section 112(c) and whether Chubb alleged that Taube–Koret was a "claimant" under Section 112(c) of CERCLA.[12]

Under Section 112(c), a "claimant" is "any person who presents a claim for compensation under this chapter,"[13] and a "claim" is "a demand in writing for a sum certain."[14] The court noted that it had previously held that "a 'claim' consistently refers to a demand for reimbursement from the Superfund, except for its first appearance in the second sentence of section 112(a), in which it refers more generally to a pre-claim/pre-action demand to the liable party."[15] The court concluded that anyone who presents a written demand for reimbursement of cleanup costs incurred for complying with the statute qualifies as a "claimant."[16] Further, the court found support for this reading in Section 113(g)(4), which states that "[n]o action based on rights subrogated pursuant to this section by reason of payment of a claim may be commenced under this title more than 3 years after the date of payment of such a claim."[17] The court then found that, because Chubb did not allege "that Taube–Koret has made such a demand on Defendants, the Superfund, or any other [potentially responsible party (PRP)]," Chubb did not meet the definition of "claimant."[18]

Because Chubb also asserted a Section 107(a) claim as the subrogee of Taube–Koret, the court also analyzed subrogation under that provision.[19] The court found no controlling or persuasive authority on the issue of whether a subrogated cost-recovery action was authorized by Section 107(a). Ultimately, the court held that "the presumption in favor of subrogation does not apply under CERCLA section 107(a) because there is clear congressional intent to the contrary, as evident from the statutory text of section 107(a); its interaction with section 112(c) . . . and CERCLA's overall statutory purpose."[20]

In reaching this conclusion, the court first analyzed the statutory text. "Section 107(a) states that Primary Responsible Parties (PRPs) are liable for 'necessary costs of response incurred,' which are 'consistent with the national contingency plan.'"[21] CERCLA defines key terms such as "response" and "national contingency plans," so the court relied on those statutory definitions.[22] Absent a CERCLA definition of the term "incur," the court used the ordinary meaning of this word in its analysis, "which is, '[t]o acquire or come into,' '[t]o become liable or subject to as a result of one's action,' or to 'bring upon

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11 *Id.*
12 *Id.* at 958.
13 42 U.S.C. § 9601(5) (2014).
14 *Id.* § 9601(4).
15 *Chubb Custom Ins. Co.*, 710 F3d at 959 (citing Idaho v. Howmet Turbine Component Co., 814 F.2d 1376, 1380 (9th Cir. 1987)).
16 *Id.*
17 *Id.* (citing 42 U.S.C. § 9613(g)(4)).
18 *Id.*
19 *Id.* at 960.
20 *Id.* at 960-961.
21 *Id.* at 961 (citing 42 U.S.C. § 9607(a)(4)(B)).
22 *Id.* (citing 42 U.S.C. § 9601(23)-(25)).

oneself.'"[23] Relying on these definitions, the court held that "a subrogee—simply by stepping into the shoes of the insured via a reimbursement—cannot be liable for response costs under CERCLA, and thus cannot itself incur response costs."[24] Accordingly, Chubb could not circumvent Section 107(a) by "piggybacking on a subrogation principle under state law, which the plain language of section 107(a) does not support, or by inscribing a broader subrogation right by contract."[25]

The court then looked at case law to find evidence that supported this reading. It started with an indirect reference to the larger responsibilities of the party under CERCLA.[26] This reference helped to show that the application of the Section 107(a) remedies were for the party actually conducting the cleanup: "Private party remedial action is 'consistent with the [National Contingency Plan] if the action, when evaluated as a whole, is in substantial compliance with . . . [certain procedural requirements], and results in a CERCLA-quality cleanup.'"[27] A subrogee, when it provides reimbursement, is not liable for CERCLA response costs, and therefore has not incurred the response costs.[28] The Ninth Circuit relied heavily on the U.S. Supreme Court's opinion in *In United States v. Atl. Research Corp.*, which supported the idea that an insurer who is only obligated to reimburse the insured for cleanup costs, does not incur these expenses.[29] In that case, the Supreme Court concluded that "the plain language of subparagraph (B) [of CERCLA] authorizes cost-recovery actions by any private party, including PRPs."[30] The Supreme Court also noted that "any other person" under Section 107(a) is limited to "a private party that has itself incurred cleanup costs."[31] Instead, a party that has paid a claim to a liable party has only reimbursed other parties for costs that the liable party incurred.[32] "As a result, though eligible to seek contribution under Section 113(f)(1), the PRP cannot simultaneously seek to recover the same expenses under Section 107(a)."[33] The Ninth Cicruit noted that if Congress had intended for the Section 107(a) to allow broad subrogation claims, adding a narrow subrogation provision in Section 112(c) would be pointless.[34]

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23 *Id.* (citing Am. Heritage Dictionary (4th ed. 2000)).
24 *Id.* at 962 (citing 42 U.S.C. § 9607(e)(1).
25 *Id.*
26 *Id.* at 961-63.
27 *Id.* at 961(citing *Carson Harbor Vill., Ltd. v. Cnty. of Los Angeles*, 433 F.3d 1260, 1265 (9th Cir. 2006) (quoting 40 C.F.R. § 300.700(c)(3)(i)).
28 *See id.* at 962 (citing 42 U.S.C. § 9607(e)(1) (stating that "[n]o indemnification . . . shall be effective to transfer from the [PRP] . . . to any other person the liability imposed under this section.")).
29 *See id.* at 963-64 (citing *United States v. Atl. Research Corp.*, 551 U.S. 128, 139 (2007) (observing that "by reimbursing response costs paid by other parties, the PRP has not incurred its own costs of response and therefore cannot recover under § 107(a).")).
30 *Id.* at 964 (citing *Atl. Research Corp.*, 551 U.S. at 136).
31 *Id.* at 963 (citing *Atl. Research Corp.*, 551 U.S. at 139).
32 *See id.*
33 *Id.* at 964 (citing *Atl. Research Corp.*, 551 U.S. at 139).
34 *Id.* at 966.

POLICY CONSIDERATIONS FOR THE NINTH CIRCUIT'S DECISION ON SUBROGATION CLAIMS

The Ninth Circuit noted several policies that supported its limitations on claimants under Sections 107 and 112. Having an option available to a party that could not qualify as a claimant under Section 107(a) would undermine the claimant's ability to choose between Sections 107 and 112.[35] The court also noted that insurers could still use these sections because Section 107(e)(2) only explains that nothing in CERCLA shall impede the assertion of a proper subrogation claim.[36]

The Ninth Circuit emphasized that the lack of a universal right for insurers to sue would not bring an end to environmental insurance; in the two decades before the filing of the Chubb case, the lack of Section 107 and 112 remedies for insurers had no perceivable effect on the offering of environmental insurance policies.[37] Though Chubb argued that this limitation on insurance companies would undermine CERCLA efforts to promptly clean hazardous sites, the court rebutted that the statute plainly pointed to one of the PRPs (as well as the government) to carry the burden and then spread any costs of cleanup to all liable parties.[38] Furthermore, allowing equitable subrogation would undermine the goal of reining in CERCLA litigation by fostering settlement with PRPs.[39] Moreover, the court was also concerned with avoiding the possibility of double recovery by the insured, which the statute prohibits.[40] Relatively simple changes in the insurance contract would allow the insurance company to take over the cleanup in a way so it, instead of the insured, could then pursue a claim under Sections 107 or 112.[41] The court finally held that allowing the subrogees who were not claimants to recover under CERCLA was unfair because the statute expressly bars contractual assignment of liability.[42]

IMPACT

The Ninth Circuit's opinion on the ability of the insurer, as well as subrogees in general, to make claims for reimbursement establishes clear rules for the claims allowed

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35 *See id.* at 955-66 (stating that "[e]nabling an insurer, as the claimant's subrogee, to proceed under section 107(a) for reimbursement of its insurance payment is far broader than what is contemplated under section 112(c), and therefore would impermissibly swallow—not complement—the subrogation provision").

36 *See id.* at 966 (noting that subrogation claims are not foreclosed, as long as Section 112(c) and relevant state law permit).

37 *See id.* at 969 (quoting William Pritchard Jr., Pollution Solution, American Agent & Broker (Feb. 2011), which states that "from 1990 to 2010, the number of companies offering environmental insurance products jumped from four to forty, which was a thousand percent growth over twenty years")).

38 *Id.* at 969-70.

39 *See id.* at 971 (citing Cal. Dep't of Toxic Substances Control v. City of Chico, 297 F.Supp.2d 1227, 1235 (E.D.Cal.2004) (stating that "[o]ne of the core purposes of CERCLA is to foster settlement through its system of incentives and without unnecessarily further complicating already complicated litigation")).

40 *Id.* at 970.

41 *Id.*

42 *Id.* at 971 (citing 42 U.S.C. § 9607(e)(1) (stating that "[n]o indemnification . . . shall be effective to transfer from the [PRP] . . . to any other person the liability imposed under this section.").

under CERCLA. While it remains to be seen if the Fifth Circuit will arrive at the same conclusion, addressing this holding should form part of the Fifth Circuit's analysis in a similar future case as the *Chubb* decision makes a strong argument for restricting the category of claimants under Sections 107 and 112.

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SIERRA CLUB V. ANDREWS CNTY., ANDREWS INDUS. FOUND., AND ANDREWS CHAMBER OF COMMERCE, 418 S.W.3D 711 (TEX. APP.—EL PASO DEC. 6, 2013, PET. FILED)

In *Sierra Club v. Andrews County, Texas, Andrews Industrial Foundation, and Andrews Chamber of Commerce*, the El Paso Court of Appeals reversed an Andrews County trial court's denial of Sierra Club's motion to dismiss a claim of tortious interference with a lease brought by Andrews County, Andrews Industrial Foundation, and the Andrews Chamber of Commerce (collectively, "the County").[1] The dismissal was granted pursuant to the Texas Citizens' Participation Act (TCPA), Texas' anti-Strategic Lawsuit Against Public Participation (SLAPP) legislation.[2]

BACKGROUND & PROCEDURAL HISTORY

In January 2009, the Texas Commission on Environmental Quality (TCEQ) issued a license to Waste Control Specialists, LLC (WCS), which enabled WCS to build and operate a low-level radioactive waste disposal facility in Andrews County, Texas.[3] Sierra Club opposed the granting of this license and requested a contested case hearing on the matter, which the TCEQ denied.[4] Sierra Club appealed this denial, and in May 2012, a Travis County district court reversed and remanded the matter to the TCEQ for a contested case hearing.[5] Only days thereafter, Sierra Club initiated another suit against the TCEQ in Travis County, contesting the TCEQ's decision to allow WCS to "begin accepting low-level radioactive waste."[6]

In late June 2012, the County filed suit against Sierra Club in Andrews County district court claiming Sierra Club had tortiously interfered with the County's lease agreement with WCS.[7] The County sought two declaratory judgments: one regarding the validity of provisions in the lease between the County and WSC, and the other regarding the applicability of a Texas Water Code venue provision.[8] Pursuant to TCPA, Sierra Club moved for dismissal of the suit alleging the County's claims were in response to Sierra Club's exercise of its First Amendment right of free speech.[9] The trial court heard the motion but failed to rule within thirty days of the hearing, and the motion was

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1 Sierra Club v. Andrews Cnty., Andrews Indus. Found. & Andrews Chamber of Commerce, 418 S.W. 3d 711, 713 (Tex. App.—El Paso Dec. 6, 2013, pet. filed).

2 *Id.*; TEX. CIV. PRAC. & REM. CODE ANN. §§ 27.001-27.011 (West 2011).

3 *Andrews Cnty.*, 418 S.W. 3d at 713-14.

4 *Id.* at 714.

5 *Id.*; Sierra Club v. Tex. Comm'n on Envtl. Quality, D-1-GN-09-000894 (98th Dist. Ct., Travis County, Tex. May 14, 2012).

6 *Andrews Cnty.*, 418 S.W.3d at 714; Sierra Club v. Tex. Comm'n on Envtl. Quality, No. D-1-GN-12-001586 (98th Dist. Ct., Travis County, Tex. May 25, 2012).

7 *Andrews Cnty.*, 418 S.W.3d at 714.

8 *Id.*

9 *Id.*; TEX. CIV. PRAC. & REM. CODE ANN. § 27.003 (West 2011).

thus denied by operation of law pursuant to Section 27.008(a) of the Texas Civil Practice and Remedies Code.[10] Sierra Club appealed.[11]

THE DECISION OF THE EL PASO COURT OF APPEALS

On appeal, pursuant to the TCPA, Sierra Club first had to establish by a preponderance of the evidence that the County's suit was brought in response to Sierra Club's exercise of its First Amendment rights.[12] If this burden is met, a motion to dismiss under the TCPA must be granted unless a plaintiff "establishes by clear and specific evidence a prima facie case for each essential element of the claim in question."[13] Under the TCPA, the court reviews trial court determinations *de novo*.[14]

The Court of Appeals first analyzed whether Sierra Club had shown by a preponderance of the evidence that the County's claims were "based on, related to, or in response to Sierra Club's exercise of its First Amendment rights."[15] Relying on several California cases, the County argued its claims were related to the lease and interpretation of a provision in the Texas Water Code, not Sierra Club's attempts to enjoin WCS's activities.[16] The court dismissed these arguments and found the basis for the County's claims was the pursuit of an injunction—a protected activity.[17] As such, Sierra Club had met its burden and the burden shifted to the County pursuant to TCPA Section 27.005(c) to demonstrate by clear and specific evidence a prima facie case in support of its declaratory judgment claims.[18]

Sierra Club challenged the justiciability of the County's declaratory relief claims.[19] Regarding the declaratory judgment claim concerning the WCS-County lease, the court found Sierra Club's attempts to enjoin operation of the radioactive waste facility had nothing to do with the validity or interpretation of the lease between the County and WCS.[20] The court found that there was no justiciable controversy between the County and WCS concerning the lease, and that the County had thus failed to establish a "prima facie case" by "clear and specific evidence" that it was entitled to a declaratory judgment regarding provisions in its lease with WCS.[21]

Pursuant to Texas Water Code Section 7.357, the County also sought a declaration that mandatory venue for suits seeking injunctive relief against WCS was in Andrews County.[22] The County admitted that the purpose of the declaration sought was to direct

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10 *Andrews Cnty.*, 418 S.W.3d at 714-715; TEX. CIV. PRAC. & REM. CODE ANN. § 27.008(a) (West Supp. 2013).
11 *Andrews Cnty.*, 418 S.W.3d at 715.
12 *Id.*; TEX. CIV. PRAC. & REM. CODE ANN. §§ 27.003(a) & 27.005(b)(1).
13 TEX. CIV. PRAC. & REM. CODE ANN. § 27.005(c).
14 *Andrews Cnty.*, 418 S.W.3d at 715; *see also* Rehak Creative Servs., Inc. v. Witt, 404 S.W.3d 716, 724–27 (Tex. App.—Houston [14th Dist.] 2013, pet. denied).
15 *Andrews Cnty.*, 418 S.W.3d at 716.
16 *Id.*
17 *Id.* at 717.
18 *Id*; TEX. CIV. PRAC. & REM. CODE ANN. § 27.005(c).
19 *Andrews Cnty.*, 418 S.W.3d at 717.
20 *Id.* at 718.
21 *Id.*
22 *Id.*; TEX. WATER CODE ANN. § 7.357 (West 1997) (allowing permissive venue in the county where the alleged violation occurred or is about to occur).

Sierra Club's future actions, and the Court accordingly found that the relief sought concerned "future, hypothetical situations" and that no justiciable controversy existed involving "a genuine conflict of tangible interests."[23]

Lastly, the court examined the County's tortious interference claim.[24] Under the TCPA, the County had to make a prima facie case by offering clear and specific evidence of each element.[25] The court found that the County had established nothing more than the existence of a valid contract between the County and WCS, a contention Sierra Club did not dispute, and that the County and WCS failed to adduce evidence of actual damages or loss.[26]

Having determined the County failed to make a prima facie case for any of its claims, the Court went on to award Sierra Club attorneys' fees and expenses pursuant to Section 27.009(a)(1) of the Texas Civil Practice and Remedies Code; however, the court stopped short of sanctioning the County.[27] When a case is dismissed pursuant to the TCPA, sanctions are permitted to "deter the party who brought the legal action from bringing similar actions."[28] The court analyzed the County's claims under Rule 13 of the Texas Rules of Civil Procedure, which concerns groundless pleadings brought in bad faith or for the purpose of harassment.[29] Sierra Club's sanctions request was remanded to the lower court for additional proceedings.[30]

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23 *Andrews Cnty.*, 418 S.W.3d at 718-19.
24 *Id.* at 719.
25 *Id.* (citing Tex. Civ. Prac. & Rem. Code Ann. § 27.005(c) (West 2013)).
26 *Id. at* 719-20.
27 *Andrews Cnty.*, 418 S.W.3d at 721-22. Sierra Club was awarded $49,980 in legal fees and $9,001.62 in expenses. The court also awarded $7,500 in appellate legal fees and conditional appellate fees of $17,000 if Sierra Club prevailed in the Supreme Court.
28 *Id.* at 721 (citing Tex. Civ. Prac. & Rem. Code Ann. § 27.009(a)(2)).
29 *Andrews Cnty.*, 418 S.W.3d at 721; Tex. R. Civ. P. 13.
30 *Andrews Cnty.*, 418 S.W.3d at 722.