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House Special is Genetically Modified Corn Chowder: The Spread of Genetically Modified Organisms Throughout Our Food System

By Taylar Green

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I. Introduction

Biotechnology research is on the brink of many exciting discoveries. One in particular is gene modification in organisms. Plants or animals that have undergone a gene mutation process whereby scientists alter their genes with DNA from different species to get the desired characteristics are classified as genetically modified. Accordingly, genetically modified corn contains foreign genes that would not be found in otherwise unmodi-

See Marc Lallanilla, GMOs: Facts About Genetically Modified Food, Live Sci. (Jan. 11, 2016, 10:49 PM), http://www.livescience.com/40895-gmo-facts.html (providing facts about genetically-modified food). See generally The Truth Behind Genetically Modified Corn: Part I, Advanced Allergy Solutions (June 10, 2015), http://www.aasclinics.com/the-truth-behind-genetically-modified-corn/ (explaining the effects of genetically-modified corn).

fied corn.² Corn is an ideal crop to genetically modify because it is plant-based, multiplies rapidly, is cost efficient, and feeds a wide range of organisms.³ Further, genetically modified corn appears identical to unmodified crops.⁴

The use of corn as a commonly genetically modified crop has far-reaching effects. Since one cannot discern the chemical composition of a crop by looking at it, consumers often rely upon the natural assumption that the corn does not contain engineered genes, which results in unintentional consumption of genetically modified crops.⁵ Consumers further indirectly ingest the modified genes when they eat livestock who ate genetically modified feed or processed foods that are composed of genetically modified ingredients.⁶ The spread of genetically modified corn seeds may also occur through crop contamination resulting from wind and gravity to unmodified fields of neighboring farmers.⁷ Minimizing contamination of genetically unmodified corn with genetically modified corn is important both for economic prosperity as well as for longevity.⁸

First, in Part II, this paper explores the use of genetically modified corn in the pharmaceutical, industrial, and consumer markets. It discusses the prominent benefits of using genetically modified corn, as well as its extensive risks. Part III discusses the spread of genetically modified corn through our food supplies. After, this paper discusses the variety of standards the United States, European Union, and United Kingdom use to determine whether a genetically modified crop should be allowed to enter their markets.

Part IV discusses those responsible for the spread and confinement of genetically modified corn: the consumers, United States Congress, United States administrative agencies, and patent owners. The Food and Drug Administration (FDA), United States Department of Agriculture (USDA), and Environmental Protection Agency (EPA) are actively involved in conducting research and setting guidelines to internalize the risks genetically modified corn may pose. The federal government is not solely responsible for imposing limitations on the spread of modified genes in plants. Patent owners will often patent genetically modified corn seeds to prevent farmers from using the same genetically modified gene without their permission. However, patent owners must also act

David Andow et al., Union of Concerned Scientists, A Growing Concern: Protecting the Food Supply in Pharmaceutical and Industrial Crops 73 (2004).

Ken Mandel, GMO Food Pros and Cons, Newsmax (June 11, 2015, 10:03 AM), http://www.newsmax.com/Health/Health-Wire/GMO-foods-positives-negatives/2015/06/10/id/649812/. See generally Walt Pickut, What are the Benefits of GMO Com?, Livestrong.com/(Oct. 3, 2017), http://www.livestrong.com/article/254564-what-are-the-benefits-of-gmo-corn/.

⁴ Andow et al., supra note 2.

⁵ Lallanilla, supra note 1.

Gregory Jaffe, Ctr. for Sci. in Pub. Interest, Straight Talk on Genetically Engineered Foods: Answers to Frequently Asked Questions 3 (2015), https://cspinet.org/sites/default/files/attachment/biotech-faq.pdf; see Kristen Michaelis, Hybrid Seeds vs. GMOs, Food Renegade, http://www.foodrenegade.com/hybrid-seeds-vs-gmos/ (last visited Apr. 16, 2018) (detailing the spread of genetically-modified seeds).

See Allen Geyer & Peter Thomison, Managing "Pollen Drift" to Minimize Contamination of Non-GMO Corn, Ohio St. U. (Mar. 15, 2016), http://www.ohioline.osu.edu/factsheet/agf-153 (explaining how to manage pollen drift to minimize contamination of non-genetically-modified corn).

⁸ See id.

⁹ See id.

responsibly to prevent the spread of these genetically modified corn seeds before they contaminate all corn sources.¹⁰

Finally, in Part V, this paper identifies the problem of genetically modified corn seeds spreading throughout our food system and identifies ways patent owners can take action. Some mechanisms patent owners and agencies should consider to prevent contamination are: zoning, spatial separation, temporal separation, dedicated machinery infrastructure, disallowing food crops, biological confinement, and physical confinement. These mechanisms allow space for scientific and medical innovation, while still protecting public health through virtually zero contamination by the genetically modified corn seeds. Ultimately, while genetically modified corn's effects are still unknown and in question, preventing contamination is imperative for all involved.

II. CORN AS THE GENETICALLY MODIFIED CROP OF CHOICE

Patent owners typically prefer to experiment with corn for a variety of reasons. First, genetically modified corn looks almost identical to corn that has not been genetically modified.¹³ Secondly, corn is ideal because it can be inexpensively and reliably produced.¹⁴ Thirdly, corn seeds may be stored at a low cost and for long periods of time.¹⁵ Finally, almost any genetically modified gene may be produced in corn.¹⁶

A. BENEFITS TO GENETICALLY MODIFYING CROPS

Patent owners cite numerous advantages to support why genetically engineered crops are useful and necessary. Patent owners argue genetically modified corn is propitious for the following reasons: nutritional food source, lower drug costs, and built-in pesticide. These benefits and profits are factors as to why patent owners continue to explore and improve their genetic modifications year after year.

Corn is, first and foremost, a food source for humans and animals.¹⁸ Accordingly, a market for such food is already available and genetic modifications could potentially give these patent owners an advantage. By genetically modifying corn seeds to give food a more vibrant color or longer shelf life, it not only improves the appearance of the prod-

See Jolie Lee, What You Need to Know About GMOs, USA Today (Jan. 3, 2014, 3:05 PM), http://www.usatoday.com/story/news/nation-now/2014/01/03/gmo-genetically-modified-organism-facts-cheerios/4302121/ (discussing concern about genetically-modified organisms).

¹¹ See Divyesh Srivast, Impact of Modern Biotechnology on Pharm and Industrial Crops, http://www.biotechnologynotes.com/essays/impact-of-modern-biotechnology-on-pharm-and-in-dustrial-crops/148 (Last visited December 15, 2015) (discussing way to contain GMOs); ANDOW ET AL., supra note 2.

¹² Andow et al., supra note 2, at 13.

¹³ See id. at 73.

¹⁴ Id. at 23.

¹⁵ Id.

¹⁶ Id.

¹⁷ Id. at 1, 16, 27.

¹⁸ Id. at 1.

uct, but also increases how long it may be stored.¹⁹ In addition, corn may be genetically modified to provide more nutritional value by adding vitamins and minerals not originally found in unmodified corn.²⁰ This could have a significant impact in reducing malnutrition for those who do not have access to necessary food resources.²¹

Genetically modified crops are also used in the pharmaceutical industry.²² When corn is modified to produce chemicals intended for pharmaceutical or industrial use, it is often referred to as a "pharma crop."²³ Patent owners develop these pharma crops to reduce costs associated with drug production so companies can earn more profits while simultaneously producing more.²⁴ Additionally, because pharma crops lower the cost of the individual vaccine and drug, the crop may indirectly increase access to healthcare for those who otherwise would be unable to afford the vaccine or drug.²⁵

Finally, genetically modified crops can be engineered to include a built-in pesticide that can eliminate farmers' need for pesticides, saving them time and money.²⁶ Eliminating pests that would otherwise destroy or eat the crop also increases the total yield available for sale, which allows the farmer to purchase less seed. Decreasing the cost of production, by removing the need to purchase pesticide and excess seed, can also reduce the cost for consumers.

B. Costs of Genetically Modified Corn

While the apparent advantages that accompany genetically modified corn may be significant, they must be balanced against citizen concerns and the costs to patent owners. Whether genetically modified corn poses health risks and whether these biotechnological patent inventions are an innovative way to increase food production and nutrition has sparked much debate.²⁷ The skepticism lies in whether the genetically modified corn is safe for human consumption.²⁸ Tests have been conducted on laboratory animals, such as rats, to explore whether genetically modified corn leads to adverse health effects.²⁹ To date, the tests have been inconclusive.³⁰Still, large-scale skepticism

¹⁹ See Treacy Colbert, GMOs: Pros and Cons, HEALTHLINE, http://www.healthline.com/health/gmos-pros-and-cons (last updated Oct. 5, 2016) (discussing why genetically engineered corn seeds are beneficial).

²⁰ See Pros and Cons of Genetically Modified Food, HEALTHRESEARCHFUNDING.ORG (Dec. 4, 2013), http://www.healthresearchfunding.org/pros-cons-genetically-modified-foods/ (explaining advantages of genetically-modified foods).

²¹ Colbert, supra note 19.

²² See Andow et al., supra note 2.

²³ See id. at 1.

²⁴ Id. at 7.

²⁵ Id. at 22.

Virginia Gewin, Genetically Modified Corn—Environmental Benefits and Risks, 1 PLoS BIOLOGY 15, 16 (2003).

See e.g. GMOs: Researchers Debate the Safety of Genetically Modified Foods, Fox News (July 14, 2013), http://www.foxnews.com/health/2013/07/14/gmos-researchers-debate-healthy-safety-genetically-modified-foods.html.

²⁸ Id

See Gilles-Eric Séralini et al., Republished Study: Long-Term Toxicity of a Roundup Herbicide and a Roundup-Tolerant Genetically Modified Maize, 26 Envtl. Sci. Eur., June 24, 2014 (case study claiming genetically-modified crops link with cancer). See generally Controversial Ser-

remains over whether genetically modified corn is carcinogenic.³¹ Due to this uncertainty, patent owners of genetically modified corn seeds should prevent any spread of their crop.

Pharma crops, on the other hand, can be hazardous to human and animal health for the very reason they are useful: they have been modified to produce specific substances, such as hormones, vaccines, and plastics, which would be dangerous to ingest.³² Further, it is extremely difficult to distinguish between pharma corn and unmodified corn.³³ Without deliberate efforts to keep the two types of corn separate, the harmful substances produced by the pharma corn may easily move into the food system.³⁴ This contamination can occur with something so slight as pollen transfer between neighboring plots.³⁵ Because it is so difficult to differentiate between modified and unmodified corn, once the contamination occurs, it would likely go unnoticed and, as a consequence, continually perpetuate itself.³⁶ One could only imagine the outrage and the impending lawsuits if it were discovered these crops contaminated a breakfast cereal's crop field. Despite the advantages genetically modified corn seeds bring, contamination is so invasive that containment is an absolute requirement.

Besides the potential liability brought by injured consumers, patent owners must also consider statutory costs. To combat fears regarding the health concerns of genetically modified crops, many developed countries around the world, such as the members of the European Union, have banned genetically modified foods. Further, they have enacted laws requiring companies to label genetically modified products.³⁷ Although the United States has not enacted an outright ban, it has placed restrictions on the use of genetically modified corn seeds.³⁸ Besides potentially being held statutorily responsible, any detrimental health effects place patent owners and food companies at risk for legal liability for injury and brand damage.³⁹

Further, patent owners must also act to prevent unsuspecting farmers from infringing their patents. For example, in *Bowman v. Monsanto Co.*,⁴⁰ Vernan Hugh Bowman, a farmer, was determined to have violated Monsanto's patent when he regrew soybeans

alini Study Linking Cancer in Rats is Republished, Guardian (Jun. 24, 2014), http://www.theguardian.com/environment/2014/jun/24/controversial-seralini-study-gm-cancer-rats-republished [hereinafter Controversial Seralini Study] (confirming the controversial tests results linking genetically-modified corn with cancer in lab rats).

³⁰ Séralini et al., supra note 29, at 13.

³¹ See e.g. id.; Controversial Seralini Study, supra note 29.

³² Andow et al., supra note 2, at 1.

³³ Id. at 73.

³⁴ Id. at 27–30.

³⁵ Id. at 7.

³⁶ Id.

Theresa Papademetriou, Restrictions on Genetically Modified Organisms: European Union, LIBR. OF CONGRESS, https://www.loc.gov/law/help/restrictions-on-gmos/eu.php (last updated June 9, 2015).

^{38 7} C.F.R. § 340.1 (2017).

³⁹ Genetic Engineering of Food Crops to Produce Drugs Raises Concerns, Organic & Non-GMO Report, Sept. 2002, http://www.non-gmoreport.com/articles/millenium/geneticengineering.php.

⁴⁰ Bowman v. Monsanto Co., 569 U.S. 278 (2013).

from saved seed without a license.⁴¹ The Court held that a farmer who bought patented seeds may not "reproduce them through planting and harvesting without the patent holder's permission."⁴² Accordingly, Monsanto sued Bowman to recover damages for patent infringement.⁴³

Reproduction or contamination, however, can occur unintentionally through wind pollination or through other activities related to harvesting.⁴⁴ The unintentional cross-breeding of modified and unmodified genes directly effects patent owners because the value of their product becomes diluted when non-purchasers unintentionally benefit from their patented product. Thus, patent owners should take precautions not to spread genetically modified corn seeds.

III. SPREAD OF GENETICALLY MODIFIED CROPS

Patent owners are facing a growing problem with the spread of genetically modified corn. Receiving a patent for genetically modified corn allows the patent owner to grow that genetically modified corn but it does not give the patent owner the right to spread the modified gene to any unmodified corn seeds.⁴⁵ Unfortunately, once the crop possesses the genetically manipulated trait, it is extremely difficult to remove that genetically modified gene.⁴⁶ As a result, patent owners must proactively address the issue by working to contain their patented genetically modified corn seeds before it spreads to other corn crops.

As the use of genetically modified corn spreads, the modified genes also spread into the food supply. Currently, laws in the United States do not require food companies to label products indicating that they contain genetically modified ingredients.⁴⁷ However, a vast majority of polled Americans have expressed overwhelming support for laws that mandate labeling.⁴⁸ Consumers have expressed they have a right to know what ingredients are in the products they are buying and consuming.⁴⁹ The food industry, on the other hand, argues labeling would be expensive and useless because, to date, genetically modified foods have yet to be determined unsafe for human consumption in the United States.⁵⁰ To address the public's demands, Congress proposed the Genetically Engi-

⁴¹ Id. at 280.

⁴² Id.

⁴³ Id.

⁴⁴ Andow et al., supra note 2, at 27.

⁴⁵ Id. at 82–83.

⁴⁶ Id. at 23.

⁴⁷ See U.S. Food & Drug Admin., Guidance for Industry Voluntary Labeling Indicating Whether Foods Have or Have Not Been Derived from Genetically Engineered Plants (2015) [hereinafter USDA Voluntary Labeling Guidance].

Press Release, Ctr. for Food Safety, Federal Legislation Introduced to Require the Labeling of Genetically Engineered Foods (Apr. 24, 2013), http://www.centerforfoodsafety.org/press-releases/2116/federal-legislation-introduced-to-require-the-labeling-of-genetically-engineered-foods [hereinafter CFS Press Release].

⁴⁹ USDA VOLUNTARY LABELING GUIDANCE, supra note 47.

⁵⁰ Id.

neered Food Right-to-Know Act, which would require the labeling of all genetically modified food.⁵¹ Unfortunately, this act did not advance beyond the committee stage.⁵²

Courts have acted to protect the economic interests of the United States but lack the expertise to consider health concerns and food safety. On March 12, 2018, a \$1.51 billion settlement to over 7,000 corn producers was reached in the Syngenta genetically modified corn class action lawsuit.⁵³ The Kansas corn producers alleged that Switzerland-based Syngenta acted negligently with its genetically modified corn leading to the loss of a crucial market for United States corn thus causing them economic harm.⁵⁴ Syngenta sold two genetically modified strains of corn seeds, Agrisure Viptera and Agrisure Duracade, to the United States before China approved them.⁵⁵ China, a major importer of United States corn, began refusing all corn shipments after a genetic trait found in Viptera—MIR162—was discovered.56 The specific genetic trait had not been approved in China.⁵⁷ As a result of the loss of the Chinese market, Kansas corn growers, as well as other corn growers across the United States, saw the price of corn hit an alltime low and suffered long-lasting economic hardships.⁵⁸ Corn growers view this lawsuit as a triumph; however, this case also reflects the level of caution other countries take when accepting genetically modified crops into their food supplies. A growing number of countries are banning genetically modified crops because of serious health risks associated with this biotechnology.⁵⁹

⁵¹ See Genetically Engineered Food Right-to-Know Act, S.511, 114 Cong. § 2 (2015).

See CFS Press Release, supra note 48. See generally Lawmakers Reintroduce Bill to Label Genetically Engineered Food, Food Safety News (Feb. 13, 2015), www.foodsafetynews.com/2015/02/lawmakers-reintroduce-bill-to-label-genetically-engineered-food (Representative Peter DeFazio—a Democratic member of the House of Representatives from Oregon—advocated to allow consumers to know what is in foods they eat, stating "[m]ore than sixty other countries make it easy for consumers to choose. Why should the U.S. be any different?").

See \$1.5 BILLION SETTLEMENT IN SYNGENTA CORN NATIONWIDE CLASS ACTION LAWSUIT APPROVED, http://www.syngentacornlitigation.com (Aug. 9, 2018). See generally Hare, Wynn, Newell & Newton, LLP, Jury Awards Nearly \$218MM to Kansas Corn Producers in First Syngenta GMO Corn Class Action Lawsuit, PR Newswire (Jun. 23, 2017, 12:42 AM), http://www.prnewswire.com/news-releases/jury-awards-nearly-218mm-to-kansas-corn-producers-in-first-syngenta-gmo-corn-class-action-lawsuit-300478967.html (discussing class action lawsuit where Kansas farmers recovered money loss from China refusing to accept US goods containing GMOs). See generally Gil Gullickson, Jury Awards \$217.7 Million to Corn Growers in Syngenta GMO Class Action Lawsuit, Successful Farming (June 23, 2017), https://www.agriculture.com/markets/newswire/syngenta-must-pay-2177-mln-to-kansas-farmers-in-gmo-corn-case-jury (detailing jury decision to award Kansas corn growers \$217.7 million).

⁵⁴ Hare, Wynn, Newell & Newton, LLP, supra note 53.

⁵⁵ Id.

⁵⁶ Id.

⁵⁷ Id.

⁵⁸ Id.

⁵⁹ See David Kruft, Impacts of Genetically-Modified Crops and Seeds on Farmers (2001), https://pennstatelaw.psu.edu/_file/aglaw/Impacts_of_Genetically_Modified.pdf (discussing how genetically-modified crops are not universally accepted throughout international market in Section III(B)(2)).

A. Sources of Consumption of Genetically Modified Genes

With the constant influx of inventors vying for a patent, at present, ninety percent of all corn grown in the United States is genetically modified in some manner.⁶⁰ Because of public health concerns related to genetically engineered food, consumers tend to be combative towards genetically modified vegetables for direct human consumption. As a result, only a minority of all corn produced is grown for those purposes.⁶¹ The primary use of genetically modified corn is food for animals and livestock.⁶² Regardless, genetically modified corn has begun to spread throughout American food supply.⁶³

Scientists began testing genetically modified foods in the late 1980s, which paved the road for other biotechnology companies to experiment with genetically modified foods.⁶⁴ Calgene created the first genetically modified tomato, called the "Flavr Savr," that tested safe for human consumption.⁶⁵ The "Flavr Savr" tomato was designed to remain ripe longer, without getting soft.⁶⁶ However, Calgene was ultimately unsuccessful in its efforts to market its new tomato.

A second and especially pertinent example of a genetically modified vegetable meant for direct human consumption is sweet corn. Sweet corn remained free from genetic modifications until 2012, when Monsanto harvested its first genetically engineered batch.⁶⁷ Consumers, fearful that Monsanto's patented invention would have adverse health effects, petitioned and were ultimately successful in ensuring organic groceries stores, such as Whole Foods and Trader Joe's, source their products from genetically unmodified ingredients.⁶⁸ Alternatively, Wal-Mart continued to stock its shelves with this genetically engineered product without any label.⁶⁹

⁶⁰ See About Our Foods & Beverages, Nestle, https://www.nestleusa.com/gmos (last visited Apr. 17, 2018).

Jonathan Foley, It's Time to Rethink America's Corn System, Sci. Am. (Mar. 5, 2013) http://www.scientificamerican.com/article/time-to-rethink-corn/.

⁶² Id.

On GMOs, GENERAL MILLS, http://www.generalmills.com/News/Issues/on-biotechnology (last visited Apr. 18, 2018); About Genetically Engineered Foods, CTR. FOR FOOD SAFETY, https://www.centerforfoodsafety.org/issues/311/ge-foods/about-ge-foods (last visited Apr. 18, 2018).

G. Bruening & L.M. Lyons, *The Case of the FLAVR SAVR Tomato*, CAL. AGRIC., July—Aug. 2000, at 6–7. Evidence suggested the tomato fruit enzyme polygalacturonase lead to fruit softening. *Id.* Researchers proposed a solution to suppress the polygalacturonase in ripening tomatoes by introducing a reverse-orientation copy of the gene. *Id.*; see also Michael Winerip, You Call That a Tomato?, N.Y. Times: Blooming (Jun. 24, 2013), https://www.nytimes.com/2013/06/24/booming/you-call-that-a-tomato.html.

⁶⁵ Bruening & Lyons, *supra* note 64, at 7.

⁶⁶ Id

⁶⁷ Kim Bhasin, Walmart Is Going to Sell the Genetically Modified Corn That Its Competitors Rejected, Bus. Insider (Aug. 6, 2012, 7:39 PM), http://www.businessinsider.com/walmart-isgoing-to-sell-monsantos-genetically-modified-corn-and-it-wont-be-labeled-2012-8.

⁶⁸ Id.; see also How to Shop if Avoiding GMOs, Whole Foods Mkt., https://www.wholefoodsmarket.com/gmo-shopping-tips (last visited Apr. 18, 2018); FAQs: Product Information, Trader Joe's, https://www.traderjoes.com/faqs/product-information (last visited Apr. 18, 2018).

⁶⁹ Bhasin, supra note 67.

Despite consumer pushback, companies still produce genetically modified foods, such as corn, with lucrative results. Approximately seventy percent of all food in grocery stores is genetically modified.⁷⁰ While meats, fresh fruits, and vegetables in grocery stores are usually not directly genetically modified,⁷¹ livestock feed and processed foods often are genetically modified, which results in genetically modified genes in the food supply.⁷² For example, eating a hamburger potentially provides two sources of genetically modified genes: (1) beef from the cow that may have eaten genetically modified feed and (2) the bun that may include genetically modified ingredients such as corn.⁷³ Thus, the likelihood of consuming genetically modified genes increases.

B. STANDARDS FOR GENETICALLY MODIFIED CROPS

The European Union (EU) has passed stricter regulations than the United States on genetically modified food to prevent contaminating their food supply with genetically modified ingredients.⁷⁴ The EU enacted specific laws for genetically modified crops, whereas the United States regulates genetically modified crops under existing laws.75 Accordingly, in comparison to the United States, Europe has very little genetically modified crop cultivation so the direct food supply in the European Union still remains predominantly free of genetically modified products.⁷⁶ The few genetically modified crops that are grown in the United Kingdom are small-scale field trials which are strictly contained and not grown for commercial purposes.⁷⁷ Only two genetically modified crops have been approved for commercial growing in the European Union: (1) a variety of pest-resistant maize produced by Monsanto, and (2) a potato, known as the Amflora potato, which produces starch for use in paper-making produced by BASF.⁷⁸ Additionally, contrary to the United States which has not mandated labeling of genetically modified products, the European Union requires labeling of all products that contain genetically modified ingredients.⁷⁹ Ultimately, the European Union banned genetically modified foods "to protect human and animal health and welfare, consumer interests,

⁷⁰ On GMOs, supra note 63; About Genetically Engineered Foods, supra note 63.

See Econ. Research Serv., Recent Trends in GE Adoption, U.S. DEPT. OF AGRIC., https://www.ers.usda.gov/data-products/adoption-of-genetically-engineered-crops-in-the-us/recent-trends-in-ge-adoption.aspx (last updated July 12, 2017) (detailing which fruits and vegetables are not genetically modified). However, salmon recently has stepped out of this boundary. FDA Has Determined That the AquAdvantage Salmon Is as Safe to Eat as Non-GE Salmon, U.S. FOOD & DRUG ADMIN., https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm 472487.htm (last updated Dec. 13, 2017).

⁷² See JAFFE, supra note 6, at 11, 15.

⁷³ See How to Shop if Avoiding GMOs, supra note 68; FAQs: Product Information, supra note 68.

⁷⁴ See GMO Legislation, Eur. Commission, http://www.ec.europa.eu/food/plant/gmo/legislation_en (last visited Apr. 18, 2018).

Luis Acosta, Restrictions on Genetically Modified Organisms: United States, Libr. of Congres, http://www.loc.gov/law/help/restrictions-on-gmos/usa.php (last updated June 9, 2015).

⁷⁶ Papademetriou, supra note 37.

Clare Feikert-Ahalt, Restrictions on Genetically Modified Organisms: England and Wales, LIBR. OF CONGRESS, https://www.loc.gov/law/help/restrictions-on-gmos/england-wales.php (last updated June 9, 2015).

⁷⁸ Papademetriou, supra note 37.

⁷⁹ Id.

and the environment."⁸⁰Despite the ban, the European Union requires all genetically modified crops entering its jurisdiction to undergo a product-by-product evaluation before it can be sold for any purpose.⁸¹

While both the European Union and the United States debate the propriety of genetically modified food, they take starkly different approaches to its regulation: the European Union is proactive in preventing potential health hazards, whereas the United States generally reacts once the health hazard is positively identified and proven. Selectifically, the European Union uses the Precautionary Principle which prohibits products from entering the markets unless proven safe. The United States, on the other hand, follows the sound-science approach which states products are allowed in the country unless actual harm is proven. The sound-science approach does not require action by the United States unless it found, with overwhelming certainty, evidence proving genetically modified corn seeds to be a health hazard. Once identified as such a hazard, patent holders, consumers, and governmental agencies would then control the spread of the genetically modified seeds.

IV. Responsible Parties: Consumers, Legislatures, Agencies, and Patent Owners

Because federal legislation specific to governing genetically modified crops has not been enacted in the United States, genetically modified corn crops are regulated pursuant to existing general health, safety, and environmental legislation.⁸⁵ In response to consumer protests against genetically modified crops, the Executive Office of the President (EOP) created a framework for regulating biotechnology.⁸⁶ The principles it established are used as a guide by agencies that regulate biotechnology mirroring the United States' view on genetically modified crops.⁸⁷

In 1986, the EOP, Office of Science and Technology Policy (OSTP) issued a policy statement, "Coordinated Framework for Regulation of Biotechnology" (Coordinated Framework), which detailed the basic approach to regulating genetically modified organisms in the United States.⁸⁸ The Coordinated Framework addresses whether the current regulatory framework would be adequate for products created through biotechnology.⁸⁹ The OSTP concluded that existing law was sufficient to regulate genet-

⁸⁰ Id.

⁸¹ Id.

⁸² Id.

⁸³ Id.

⁸⁴ Kelly A. Clancy, The Politics of Genetically Modified Organisms in the United States and Europe 67 (2017).

⁸⁵ Acosta, supra note 75.

⁸⁶ Id.

⁸⁷ Id.

Proposal for a Coordinated Framework for Regulation of Biotechnology, Notice for Public Comment, 49 Fed. Reg. 50,856 (Dec. 31, 1984).

⁸⁹ Id.

ically modified crops and that genetically modified crops pose no new risks. 90 Ultimately, it concluded that existing laws are adequate so long as they are supplemented with some additional new regulations.

While patent owners are ultimately responsible for the spread of genetically modified corn seeds during the cultivation stage, other entities can also play a role in the spread of genetically modified corn. Consumers, in addition to federal and state agencies, such as the U.S. Food and Drug Administration (FDA), Department of Agriculture (USDA), and Environmental Protection Agency (EPA), can act to contain the spread of genetically modified seeds. These federal agencies determine the success or failure of patent owners who use genetically modified technology. Without consumer support and governmental approval, genetically modified technology would fail.

A. Consumers and Their Purchasing Power

Consumers support the development and production of genetically modified corn through their purchasing power. To contain the spread of genetically modified genes, consumers must accept some of the responsibility for genetically modified crop success thus far. To undercut the current trend, consumers must not select food products from the grocery store without first inspecting these labels for genetically modified ingredients. However, this responsibility presupposes that consumers have sufficient notice regarding the contents and ingredients in the food they are purchasing. While some shoppers may be unaware of the potential risks involved with consuming genetically modified food, even cognizant shoppers may not be able to accurately identify the contents of what they are purchasing. This unfortunately means that even consumers who would not wish to support genetically modified food may unwittingly support that very venture through their purchases.

For consumers to make informed decisions regarding their food purchases, consistent and unambiguous labeling practices should be applied. Consumers who purchase corn that patent owners have not labeled as containing genetically modified corn may unintentionally spread genetically modified corn. Descriptors, such as "natural," which consumers gravitate towards when they wish to select products that are made from unmodified ingredients, have come to develop new meaning. According to the Merriam-Webster dictionary, the definition of "natural" is "existing in or produced by nature: not artificial." Currently, the FDA does not interpret "natural" as narrowly as the dictionary. This diversion from the plain meaning is misleading to consumers and, consequently, courts have proposed that the FDA decide whether the term "natural" can be used to describe foods that contain genetically modified ingredients. Consumers may

⁹⁰ Id.

⁹¹ Acosta, supra note 75.

⁹² Natural, Merriam-Webster Dictionary (2016).

[&]quot;Natural" on Food Labeling, U.S. FOOD & DRUG ADMIN., https://www.fda.gov/food/guidance regulation/guidancedocumentsregulatoryinformation/labelingnutrition/ucm456090.htm (last updated Nov. 11, 2017).

⁹⁴ Elaine Watson, FDA 'Respectfully Declines' Judges' Plea for It to Determine if GMOs Belong in All-Natural Products, FOOD NAVIGATOR-USA.COM, https://www.foodnavigator-usa.com/Article/2014/01/08/FDA-rejects-judges-plea-to-determine-if-GMOs-are-natural (last updated Jan. 10, 2014).

be assured that products labeled with "100% organic," a phrase which does not carry with it the same connotations as "natural," does not contain genetically modified ingredients.⁹⁵ Accordingly, consumers' inability to ascertain whether their food has been genetically modified furthers the spread of genetically modified food.

B. LEGISLATIVE BRANCH

The legislative branch of the United States federal government is forced between competing interests: consumers and businesses. Accordingly, it must balance the interests of its constituents with the capabilities of the budget and the interests of the economy. Thus, while it is within the legislature's ability to place requirements and standards for the food industry to protect public health, it does not always do so. Grganizations have lobbied for a variety of different legislation on genetically modified corn from requiring stricter regulations on corn to an outright ban on the use of genetically modified corn. Regardless of the justifications, however, the spread of genetically modified corn needs to be contained so that it does not contaminate the corn grown by organic farmers.

Because this is a large-scale problem, states and municipalities are unable to play a substantial role in the regulation of genetically modified corn. At the behest of their constituents, some municipal governments have begun banning the use of genetically modified crops. For example, counties in California and Hawaii have outlawed the cultivation of genetically modified crops. However, a majority of states have passed legislation pre-empting municipalities from creating their own laws restricting genetically modified crops. The consequences of not containing genetically modified corn are a real concern to many Americans and legislatures are listening.

C. FEDERAL AGENCIES

Federal agencies, such as the FDA, USDA, and EPA are designed to regulate patented products to ensure they are safe for production. The FDA's mission is to protect

Frequently Asked Questions, ORGANIC.ORG, http://www.organic.org/home/faq (last visited Apr. 18, 2018) (explaining "What Is Organic?," "How do I know if something is organic?," and "What does the USDA Organic seal mean?").

What Government Does, FOODSAFETY.GOV, http://www.foodsafety.gov/keep/government (last visited Apr. 18, 2018). President Obama signed the Food Safety Modernization Act (FSMA) on January 4, 2011, which allows the FDA "to better protect public health by strengthening the food safety system." *Id.* The Act "allows FDA to focus more on preventing food safety problems, rather than reacting to problems after they occur." *Id.*

⁹⁷ See Shahla Wunderlich & Kelsey A. Gatto, Consumer Perception of Genetically Modified Organism and Sources of Information, 6 ADVANCES IN NUTRITION 842, 848–49 (2015) (recognizing the various organizations and countries pushing for stricter labeling requirements and potential bans on certain genetically modified products).

⁹⁸ Acosta, supra note 75.

⁹⁹ Id.

¹⁰⁰ Id.

¹⁰¹ Kristina Johnson, Twenty-Nine States Make It Illegal for Counties and Cities to Pass Seed Laws, FERN: AG Insider (Aug. 17, 2017), https://thefern.org/ag_insider/twenty-eight-states-make-illegal-counties-cities-pass-seed-laws/.

public health by assuring safety, effectiveness, and quality of the products.¹⁰² The USDA works closely with patent owners to capitalize on economic opportunity through inventions while preventing health hazards and ensuring the invention better nourishes consumers.¹⁰³ Finally, the EPA ensures patent owners of genetically modified crops comply with existing laws and regulations protecting human health and the environment.¹⁰⁴

FOOD AND DRUG ADMINISTRATION

The FDA protects public health by setting and enforcing standards that assure the safety, efficacy, and caliber of the food and drug products.¹⁰⁵ To protect the public from the spread of genetically modified corn, it has issued draft guidance on voluntary labeling practices.¹⁰⁶ The FDA does not require that food containing genetically modified ingredients be labeled as such.¹⁰⁷ Regardless, the FDA outlines general guidance that patent owners and packagers may follow for labeling genetically modified products.¹⁰⁸

Furthermore, the FDA does not require the patent owner of genetically modified seeds to prove they are safe for consumption prior to planting them. ¹⁰⁹ This, again, reinforces the need for patent owners to be mindful of distribution. If overwhelming evidence indicating harm from genetically modified crops is later uncovered, the damage will be hard to undo.

The Federal Food, Drug, and Cosmetic Act (FFDCA), FDA's authorizing statute, allows the FDA to regulate "adulterated food," which is food that "contains any poisonous or deleterious substance which may render it deleterious to health," and food additives. 110 Additionally, the FFDCA prohibits the sale of adulterated food or inaccurately branded food. 111 However, inaccuracy does not necessarily include ambiguity. Additionally, substances added to food are classified either as "food additives," which requires approval from the FDA before they can be marketed that they are safe, or as "generally recognized as safe," which does not require preapproval to be added to food and then marketed. 112

What We Do, U.S. FOOD & DRUG ADMIN., https://www.fda.gov/AboutFDA/WhatWeDo/ (last updated Mar. 28, 2018).

About the U.S. Department of Agriculture, U.S. Dept. of Agric., https://www.usda.gov/ouragency/about-usda (last visited Apr. 18, 2018).

¹⁰⁴ Our Mission and What We Do, ENVTL. PROT. AGENCY, http://www.epa.gov/aboutepa/ourmission-and-what-we-do (last visited Apr. 18, 2018).

¹⁰⁵ What We Do, supra note 102.

Voluntary Labeling Indicating Whether Foods Have or Have Not Been Derived From Genetically Engineered Plants, Notice of Guidance Availability, 80 Fed. Reg. 73,194, 73,194 (Nov. 24, 2015).

¹⁰⁷ U.S. Food & Drug Admin., Guidance for Industry: Voluntary Labeling Indicating Whether Foods Have or Have Not Been Derived From Genetically Engineered Plants (2015).

¹⁰⁸ Id.

¹⁰⁹ Statement of Policy: Foods Derived From New Plant Varieties, Notice, 57 Fed. Reg. 22,984, 22,990–91 (May 29, 1992).

¹¹⁰ Food, Drug, and Cosmetic Act, 21 U.S.C. § 342(a) (2012).

¹¹¹ Id. § 331.

¹¹² Id. § 321(s).

Currently, the FDA treats genetically modified crops as analogous to conventionally-bred crops and, consequently, recognizes them as safe for human consumption. However, if a scientist creates a new plant variety, the FDA encourages the scientist to consult with the FDA prior to distribution to resolve any regulatory issues. He FDA recognizes the importance of regulating novel plant varieties, it should apply this same requirement to companies and scientists who genetically alter pre-existing plant varieties.

2. United States Department of Agriculture

The USDA also works with patent owners to balance capitalization of economic opportunities with ensuring the safety of consumers. The USDA's goal is to encourage innovation amongst inventors while promoting agriculture production that more efficiently nourishes the population of the United States. To evaluate the impacts of genetically modified corn on agriculture, the USDA conducts farm surveys to study farmers' use of genetically modified crops. After analyzing the results of surveys, the USDA intervenes if it determines that patent owners are not containing the patented genetically modified plant.

The USDA's Animal and Plant Health Inspection Service (APHIS) division focuses on regulating the planting, importation and transportation of genetically modified plants under the Plant Protection Act (PPA).¹¹⁹ Currently, the PPA grants the Secretary of Agriculture the right to "prohibit or restrict the importation, entry, exportation, or movement in interstate commerce of any plant, plant product [etc.] if the Secretary determines [it] is necessary to prevent the introduction . . . of a plant pest or noxious weed within the United States."¹²⁰

APHIS classifies most genetically modified crops either as plant pests or potential plant pests.¹²¹ The process by which APHIS grants authorization to grow genetically modified plants occurs in three ways: (1) a notification process, (2) a permitting process, or (3) a determination of non-regulated status.¹²² The notification procedure requires the plant to meet a series of criteria including: the plant must be a species that APHIS has determined may be safely introduced, the genetic material must be stably integrated, and the expression of the genetic material must not result in plant disease.¹²³ The permit procedure requires the applicant to provide information about the donor organism, the recipient organism, the composition of the regulated article, the expression of the genetically modified material in the article and the molecular biology of the system used to

¹¹³ Statement of Policy: Foods Derived From New Plant Varieties, Notice, 57 Fed. Reg. at 22,990–91.

¹¹⁴ *Id.* at 22,988–90.

¹¹⁵ About the U.S. Department of Agriculture, supra note 103.

¹¹⁶ Id.

¹¹⁷ Econ. Research Serv., *Biotechnology: Overview*, U.S. DEPT. OF AGRIC., https://www.ers.usda.gov/topics/farm-practices-management/biotechnology/ (last updated Jan. 11, 2018).

¹¹⁸ See 7 C.F.R. § 340.6(c) (2017).

^{119 7} U.S.C. §§ 7701–7786 (2012).

¹²⁰ Id. § 7712(a).

^{121 7} C.F.R. § 340.1.

¹²² Id. § 340.

¹²³ Id. § 340.3(b).

produce the article, the locality where the donor and recipient organisms and the regulated articles were developed, the purpose of the regulated article, the quantity to be introduced, the processes to prevent release, the intended destination, use and distribution, and the final disposition of the regulated article when applying for a permit.¹²⁴ Genetically modified plants that have been tested and have not been shown to pose a risk may file a petition for a determination of non-regulated status by including: detailed biological information on the regulated article and the recipient organism, published and unpublished scientific studies, data from field tests, and other information to help APHIS decide whether the plant is a pest.¹²⁵ After receiving the petition, APHIS publishes a notice in the Federal Register and provides sixty days for public comment.¹²⁶ During this time, APHIS has 180 days to decide whether to approve or disapprove of the petition.¹²⁷ It is important that APHIS recognizes the need to have strict regulations in place for genetically modified crops.

3. Environmental Protection Agency

Finally, the EPA ensures patent owners of genetically modified crops are in compliance with federal laws protecting human health and the environment. EPA's objective, as it relates to genetically modified crops, is to focus on whether certain added chemicals pose health risks. Because genetically modified corn contains attributes not found in unmodified corn, EPA has performed tests to discover whether these artificial attributes pose health concerns to humans. While EPA is taking measures to monitor the spread of patented genetically modified corn, stricter measures may need to be taken to effectively contain the genetically modified corn seeds to the patent owner.

EPA regulates the manufacture, sale, and use of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).¹³² FIFRA requires pesticides not to cause "unreasonable adverse effects on the environment" which include environmental and health safety.¹³³ Under FIFRA, EPA also regulates plants that are genetically modified to produce substances to control pests.¹³⁴

D. PATENT OWNERS RESPONSIBLE FOR CONTAMINATING FOOD SUPPLY

Upon a finding of contamination in genetically modified food, a patent owner of genetically modified corn can be found liable in court for a variety of reasons including patent and statutory violations. ¹³⁵ Patent owners are granted a patent to grow and harvest a particular genetically modified crop only in a particular area and are not given

¹²⁴ Id. § 340.4(b).

¹²⁵ Id. § 340.6.

¹²⁶ Id. § 340.6(d).

¹²⁷ Id.

¹²⁸ Our Mission and What We Do, supra note 104.

^{129 40} C.F.R. § 725.1(a) (2017).

¹³⁰ Mike Mendelsohn et al., Are Bt Crops Safe?, 21 NATURE BIOTECHNOLOGY 1003 (2003) (presenting EPA's analysis of Bt crops and their environmental and health impacts).

¹³¹ Andow et al., supra note 2, at 38.

^{132 7} U.S.C. §§ 136–136y (2012).

¹³³ Id.

^{134 40} C.F.R. pt. 174 (2017).

¹³⁵ See Andow et al., supra note 2, at 82–83.

approval to allow that patented crop to affect other crops.¹³⁶ As one can expect, growing genetically modified corn near genetically unmodified corn often leads to contamination.¹³⁷ Even when genetically modified corn is not being used for food, the spread of genes through pollen to other crops is not desired. Due to the controversial nature of genetically modified corn seeds, patent owners must act responsibly to prevent the spread of genetically modified genes to genetically unmodified crops.

Patent owners' genetically modified crops are capable of contaminating the food supply through pollen and seeds transfer. Corn seeds are spread naturally by wind and animals or synthetically by humans harvesting the corn. Pollen transfer, on the other hand, is a necessary process for sexual reproduction in corn. Corn is a wind-pollinated plant whose offspring results from the mixing of pollen and eggs that come from different corn plants. The extent of pollen movement is determined by a variety of factors, including climate and weather, topography, insects, and the reproductive mode of the corn. Therefore, the placement of the genetically modified corn field should not be in such a location where pollen contamination is probable. Preventing the spread of genetically modified pollen to unmodified crops initially is the first line of defense in preventing the contamination of the food supply.

V. Confronting the Spread of Genetically Modified Corn

To improve confinement of genetically modified corn contamination, the federal government and genetically modified corn industry have proposed and adopted several solutions. Such confinement solutions include: zoning, spatial separation, temporal separation, dedicated machinery infrastructure, disallowing the use of genetically modified food crops, biological confinement, and physical confinement.¹⁴⁴

Each of the available confinement solutions target particular challenges posed by the use of genetically modified crops and, therefore, generally serves a specific purpose. Zoning restrictions addresses cross-pollination: the growth of genetically modified corn would be restricted to areas where genetically unmodified corn does not typically grow. Similarly, spatial separation limits cross-pollination by separating genetically modified corn from genetically unmodified corn by such distances that cross-pollination

¹³⁶ Id.

¹³⁷ Id. at 27.

¹³⁸ See id. at 7.

¹³⁹ Id. at 27.

¹⁴⁰ Id. at 28.

¹⁴¹ Id.

¹⁴² Baltazar M. Baltazar et al., Pollen-Mediated Gene Flow in Maize: Implications for Isolation Requirements and Coexistence in Mexico, the Center of Origin of Maize, 10 PLoS ONE, July 10, 2015, at 3.

¹⁴³ Andow et al., supra note 2, at 27.

¹⁴⁴ Union of Concerned Scientists, Pharm and Industrial Crops: The Next Wave of Agricultural Biotechnology 12 (2003); Andow et al., *supra* note 2, at 33.

¹⁴⁵ Andow et al., supra note 2, at 33.

would be unlikely.¹⁴⁶ Temporal separation also prevents cross-pollination by planting genetically modified corn and genetically unmodified corn at different times of the year to prevent overlapping of flowering periods.¹⁴⁷ Dedicated machinery infrastructure prevents cross-pollination and the accidental transfer of corn seeds by requiring farmers to have a separate set of farm machines specifically for genetically modified corn.¹⁴⁸ Disallowing the use of genetically modified crops ordinarily used for food would wholly prevent the contamination of food supplies but would provide scientists and patent owners the flexibility to genetically modify other types of plants.¹⁴⁹ Biological confinement reduces pollen dispersal by using various biological methods such as chloroplast engineering.¹⁵⁰ Lastly, physical confinement would require producers to grow genetically modified corn in indoor structures such as greenhouses.¹⁵¹ Each of these methods decreases the risk of contaminating genetically unmodified crops.

With a variety of solutions at hand, the federal government and the genetically modified corn industry have implemented some combination of these with the goal of preventing contamination. As detailed in Part IV (C), the FDA and the USDA both have guidelines for genetically modified corn in which safety requirements are imposed upon people in the farm to table community to market safe foods to consumers. ¹⁵² In 2002, a letter was sent to pharma crop producers describing conditions placed on crops, such as corn, and crop-specific confinement measures such as isolation distances. ¹⁵³ A year later, in 2003, the government requested that the pharma crop producers provide an explanation of the steps they have taken to comply with the 2002 requirements. ¹⁵⁴ An example of applying the longer isolation distance is not growing corn within one mile of a field test site involving genetically modified corn. In 2004, the government sent letters to applicants who applied for pharma crop permits which provided in greater detail product descriptions, confinement methods, and packaging requirements. ¹⁵⁵

The Union of Concerned Scientists has extensively researched genetically modified pharma and industrial crops and proposed a variety of methods for and restrictions on patent owners to protect genetically unmodified food in the United States from contamination.¹⁵⁶ Ultimately, the Union of Concerned Scientists felt that the USDA should adopt a strict standard to protect the food system from genetically-modified crop contamination for the following three reasons: (1) pharmaceuticals in food were discovered to potentially have disruptive effects, (2) a regulatory system establishing tolerances for pharma crops would be a waste of resources, and (3) risk assessments are imperfect.¹⁵⁷ As

¹⁴⁶ Id.

¹⁴⁷ Id.

¹⁴⁸ Id.

¹⁴⁹ Id.

¹⁵⁰ Id.

¹⁵¹ Id.

¹⁵² Id. at 9.

¹⁵³ Id.

¹⁵⁴ Id.

¹⁵⁵ Id.

¹⁵⁶ *Id.*; Union of Concerned Scientists, *supra* note 144; Robert Wisner, Union of Concerned Scientists, The Economics of Pharmaceutical Crops: Potential Benefits and Risks for Farmers and Rural Communities (2005).

¹⁵⁷ Andow et al., supra note 2, at 10–11.

a result, the Union of Concerned Scientists concluded that patent owners cannot ensure virtually zero contamination of genetically unmodified corn in the United States unless the genetically modified corn could be grown in isolated regions.¹⁵⁸

The zero-contamination standard, though challenging, is not impossible to achieve. 159 Although it would be exceedingly difficult to prevent even the smallest amount of seeds from contaminating the food supply, a zero-contamination standard is ideal due to the many ways the genetically modified corn can spread. Since genetically modified corn and genetically unmodified corn look nearly identical, the mixture may not be discovered by patent owners until the cross-contamination has already had an opportunity to repeat itself several times. 160

VI. CONCLUSION

Federal agencies, such as the FDA, USDA, EPA, consumers, and patent owners should work together to explore and place necessary restrictions on genetically modified crop cultivation and curb the spread of genetically modified corn to unmodified corn. Unfortunately, the current regulations do not prohibit the mixing of genetically modified corn with genetically unmodified corn. Entities are not incentivized to change their current methods. Regardless, it is in each of these entities' best interest to explore alternative means to harvest these genetically modified crops.

Genetically modified corn, due to its ability to multiply rapidly, poses unique risks for the community and patent owners. Corn's ability to rapidly multiply could allow cross-contamination to occur unchecked in populations meant to be unmodified for several generations before discovery. Further, removing contaminating genes is difficult. Because the United States applies the sound-science approach rather than the precautionary principle, if actual harm is caused, it would be far too late to undo the injury and thus be incredibly costly.

Encouraging innovation and trade while protecting public health is a balance that needs to be struck. While it would require extensive changes to our current regulatory scheme, it is possible to create and enforce a system that allows for virtually zero contamination by genetically modified corn. Genetically modified corn, despite its advantages, has not been accepted worldwide due to concerns of public and environmental health. Accordingly, while the spread of genetically modified corn is still controllable, it is important to have patent owners take measures to contain the genetically modified crop to prevent the widespread contamination.

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¹⁵⁸ Id. at 3.

¹⁵⁹ Id. at 24.

¹⁶⁰ Id. at 7.

The Significance of the International Monsanto Tribunal's Findings with Respect to the Nascent Crime of Ecocide

By Dr. Gwynn MacCarrick and Dr. Jackson Maggoto

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I. Introduction

On October 15-16, 2016, the International Monsanto Tribunal (IMT or "Tribunal") convened at the seat of the International Court of Justice in the Hague. The authors were appointed amicus curiae to the IMT as legal counsel assisting the Tribunal on the question of corporate complicity in war crimes and the enunciation of the crime of Ecocide. The IMT was an international civil society initiative to hold Monsanto, the Defendant Company, accountable for human rights violations, for complicity to war crimes, and potentially for the crime of Ecocide. For the first time, a citizens' initiative sought to initiate international legal dialogue and energize conversations on how the global community might bridge the 'accountability gap' of multinational companies engaging either directly in environmental destruction, or indirectly by supplying states with chemical herbicides that produced the same effects.

On April 18, 2017, eminent judges delivered an Advisory Opinion (pursuant to the procedures of the International Court of Justice) based upon the testimonies from victims, and legal submissions made. This paper seeks to address the importance of the Tribunal (as a novel international forum) and the importance of its findings in clarifying the legal obligations of multinational corporations and progressing international law. It concludes that a major contribution made by this civil society initiative is to advance an authoritative international discourse around the need to formally recognize and ultimately codify of the crime of Ecocide.

The IMT focused on the activities of Monsanto, "a publicly traded American multinational agrochemical and agricultural biotechnology corporation with headquarters in

Missouri." Monsanto is one of the first companies to genetically modify plant cells, and conduct field trials of genetically modified crops.² Monsanto has played and continues to play a dominant role in changing global agricultural practices, including engineering biotechnology products, promoting the ubiquitous use of agrochemicals in the production of food and feed crops, and the patenting and promoting of transgenic crops that have contaminated organic farming.³ Part of its business involves production of chemical herbicides, which it has supplied to militaries, namely Agent Orange in Vietnam and a Glyphosate concentrate in Colombia.⁴ These tailor-made chemicals have been, and continue to be, used in aerial spraying campaigns, extended since the 1960s.⁵ The IMT heard witness and expert testimony that Monsanto has been complicit in facilitating chemical defoliation practices, resulting in severe and widespread destruction of ecosystems, destruction of livelihoods, and recognized as causing human health disorders, including but not limited to, generational birth defects.⁶

The past and present activities of Monsanto were the focus of the IMT.⁷ On October 15-16, 2016, the IMT convened at the seat of the International Court of Justice, in the Hague.⁸ The IMT is an extraordinary court born out of the determination of civil society to hold Monsanto accountable for alleged human rights violations, for complicity to war crimes, and potentially for the crime of Ecocide.⁹ Eminent judges delivered an Advisory Opinion (pursuant to the procedures of the International Court of Justice) on April 18, 2017 based upon the testimonies from victims, and legal submissions made.¹⁰

Brief for Dr. Gwynn MacCarrick as Amicus Curiae, Advisory Opinion, Int'l Monsanto Trib., at 5 (Apr. 18, 2018), http://www.monsanto-tribunal.org/upload/asset_cache/4447668 06.pdf [hereinafter MacCarrick Amicus Brief]. In April 2018, the U.S. Justice Department reportedly approved Bayer's purchase of Monsanto for \$62.5 billion. Bayer Shares Jump on Report of U.S. Antitrust Deal on Monsanto, Reuters (April 9, 2018, 1:23 PM), https://www.reuters.com/article/us-monsanto-m-a-bayer/bayer-shares-jump-on-report-of-u-s-antitrust-deal-on-monsanto-idUSKBN1HG2ST.

² See Biotechnology and GMOs, Monsanto, https://monsanto.com/innovations/biotechgmos/ (last visited Apr. 18, 2018).

³ See generally Leading Global Seed and Pesticide Companies, Based on Revenue in 2016, STATISTA, https://www.statista.com/statistics/257477/revenue-of-top-seed-and-trait-agribusi ness-companies-worldwide-2011/ (last visited Apr. 13, 2018).

⁴ See William Neuman, Defying U.S., Colombia Ends a Drug Tactic, N.Y. Times, May 15, 2015 at A1; Glyphosate and Roundup Brand Herbicides, Monsanto, (May 16, 2017), https://monsanto.com/company/media/statements/glyphosate-herbicide/; Agent Orange: Background on Monsanto's Involvement, Monsanto, (Apr. 7, 2017), https://monsanto.com/company/media/statements/agent-orange-background/.

⁵ See Monsanto, Backgrounder: Glyphosate and Drift (2014), https://monsanto.com/app/uploads/2017/06/glyphosate-and-drift.pdf.

Advisory Opinion, Int'l Monsanto Trib., 36–38 (Apr. 18, 2017), http://www.monsanto-tribunal.org/upload/asset_cache/189791450.pdf [hereinafter IMT Advisory Opinion].

⁷ Id. at 10–11.

⁸ Id. at 12.

⁹ Tribunal, INT'L MONSANTO TRIB., http://www.monsanto-tribunal.org/How (last visited Apr. 13, 2018).

¹⁰ See IMT Advisory Opinion, supra note 6, at 10.

The IMT's objective was, "[t]o get a ruling – even symbolic – against Monsanto by a bench of real judges, after veritable proceedings in an international court, and contribute to the establishment of international mechanisms to bring justice to victims of multinationals."

The authors anticipate that, through this international civil society initiative and the positive findings of the Tribunal, support will grow for reform of the 1998 Rome Statute of the International Criminal Court (the Rome Statute), by way of an amendment that recognizes the crime of Ecocide as a substantive crime, rather than a subset of extant crimes within the Court's jurisdiction.¹² The codification of the crime of Ecocide would establish a criminal law framework capable of bringing multinational corporations to account for severe examples of environmental destruction.¹³ A criminal enforcement mechanism would provide for the prosecution of conduct injurious to environmental and human health that, thus far, has proven impervious to the reach of the law.

Monsanto is, in many respects, an exemplar of the wanton environmental destruction that form the substance and basis of human rights abuses, war crimes, and the hypothetical crime of Ecocide. The legal proceedings that underpinned the establishment of the IMT offer a platform to address large-scale environmental damage. By bringing Monsanto to account for its culpable activities, the IMT, through its authoritative opinion, made definitive pronouncements upon the positive international law obligations of multinational corporations. While a people's court cannot make binding decisions, its findings nevertheless support the efforts of communities across the world to seek justice by referencing the opinion and guidance of eminent jurists, and their prediction about the future direction of international law. The work of this Tribunal will contribute to the progressive development of international law by clarifying the content of the human rights responsibilities of companies and informing the debate on whether the international community should introduce an amendment to the Rome Statute to include the international crime of Ecocide. 15

II. THE INTERNATIONAL MONSANTO TRIBUNAL: A NOVEL JUDICIAL FORUM

The IMT was established as a unique "Opinion Tribunal" and presided over six questions (or Terms of Reference) relating to the impact of Monsanto's activities on the human rights of citizens and the environment. ¹⁶ The Tribunal members confined their

¹¹ Tribunal, supra note 9.

¹² See IMT Advisory Opinion, supra note 6, at 47.

¹³ See id.

¹⁴ Id.

The International Criminal Court established by the Rome Statute of the International Criminal Court (the Rome Statute), exercises universal jurisdiction over crimes defined under the statute including genocide, crimes against humanity, and war crimes. Rome Statute of the International Criminal Court arts. 12–13, July 1, 2002, 2187 U.N.T.S. 90.

IMT Advisory Opinion, supra note 6, at 9–10. The IMT Terms of Reference are as follows:
 i. Did the firm Monsanto, by its activities, act in conformity with the right to a safe, clean, healthy and sustainable environment, as recognized in international

deliberations to legal considerations based on factual testimony and weighed that evidence in considering Monsanto's failure to observe international humanitarian law and human rights obligations.¹⁷ The Tribunal's Advisory Opinion was informed by legal argument and evidence of victims who attested to Monsanto's activities.¹⁸ This procedure is analogous to that followed by the International Court of Justice under chapter IV of its Statute.¹⁹ While the Tribunal did not have investigative power, it heard witness testi-

human rights law (Resolution 25/21 of the Human Rights Council of 15 April 2014), taking into account the responsibilities imposed on corporations by the Guiding Principles on Business and Human Rights, as endorsed by the Human Rights Council in Resolution 17/4 of 16 June 2011?

ii. Did the firm Monsanto, by its activities, act in conformity with the right to food, as recognized in Article 11 of the International Covenant on Economic, Social and Cultural Rights, in Articles 24.2(c) and (e) and 27.3 of the Convention on the Rights of the Child, and in Articles 25(f) and 28.1 of the Convention on the Elimination of All Forms of Discrimination against Women, taking into account the responsibilities imposed on corporations by the Guiding Principles on Business and Human Rights, as endorsed by the Human Rights Council in Resolution 17/4 of 16 June 2011?

iii. Did the firm Monsanto, by its activities, act in conformity with the right to the highest attainable standard of health, as recognized in Article 12 of the International Covenant on Economic, Social and Cultural Rights, or the right of child to the enjoyment of the highest attainable standard of health, as recognized by Article 24 of the Convention on the Rights of the Child, taking into account the responsibilities imposed on corporations by the Guiding Principles on Business and Human Rights, as endorsed by the Human Rights Council in Resolution 17/4 of 16 June 2011?

- iv. Did the firm Monsanto act, by its activities, in conformity with the freedom indispensable for scientific research, as guaranteed by Article 15(3) of the International Covenant on Economic, Social and Cultural Rights, as well as the freedoms of thought and expression guaranteed in Article 19 of the International Covenant on Civil and Political Rights, taking into account the responsibilities imposed on corporations by the Guiding Principles on Business and Human Rights, as endorsed by the Human Rights Council in Resolution 17/4 of 16 June 2011?
- v. Could the firm Monsanto be held complicit in the commission of a war crime, as defined in Article 8(2) of the Statute of the International Criminal Court, by providing materials to the United States Army in the context of operation "Ranch Hand" launched in Vietnam in 1962?
- vi. Could the past and present activities of Monsanto constitute a crime of Ecocide, understood as causing serious damage or destroying the environment, so as to significantly and durably alter the global commons or ecosystem services upon which certain human groups rely?

Id. at 10–11.

¹⁷ Id. at 12-13.

¹⁸ See id. at 12–13, 59.

¹⁹ Cf. Statute of the International Court of Justice arts. 65–68, June 26, 1945, 59 Stat. 1055.

mony of individuals from several countries and received empirical scientific submissions from various experts.²⁰

The IMT derived its legitimacy from its transparent method of establishment and its mandate. All interested parties were invited to submit briefs related to the six questions the Tribunal was asked to consider.²¹ Monsanto, the defendant company, did not acknowledge receipt of the communication from the IMT, and did not formally decline to participate.²²

The Tribunal acted under the authority of global citizenry.²³ Its legitimacy came from its international advisory function, the universal nature of the subject matter, and its considered and legally nuanced authoritative opinion.²⁴ The IMT operated under a direct mandate from dozens of scientists, farmers, concerned citizens, and activists, and with the support of a number of individuals and organizations worldwide concerned with Monsanto's impact on international human rights.²⁵ The Tribunal was not presenting itself as a substitute to courts established at the domestic level, which are capable of adjudicating claims against Monsanto, or of mechanisms, such as the U.N. Working Group on Business and Human Rights, set up at an international level to inquire about the activities of companies.²⁶ Rather, the IMT was a supranational tribunal vested with the authority to hear a legal matter, for which no other international suitable forum exists.²⁷

²⁰ IMT Advisory Opinion, supra note 6, at 10.

²¹ Id. at 9–10, 57–58.

²² Id. at 9–10.

²³ See id. at 9.

²⁴ Id. at 9–10. The concept of universal jurisdiction is rooted in treating certain crimes as crimes against humanity, for which jurisdictional arbitrage—also known as forum shopping—cannot be allowed. See Yana Shy Kraytman, Universal Jurisdiction – Historical Roots and Modern Implications, 2 Brussels J. of Int'l Studies 94, 108-17 (2005). This is tied to the idea that some international law obligations are jus cogens—binding law from which no deviation is permitted by any actor, by agreement or otherwise—and some international norms are erga omnes—an obligation owed to the entire world. See id.

The Signers, Int'l Monsanto Trib., http://www.monsanto-tribunal.org/signers-organisations (last visited Apr. 13, 2018) (providing a list of specific individual and organizational supporters of IMT); About Us, Int'l Monsanto Trib., http://www.monsanto-tribunal.org/why-a-tribunal/about-us (last visited Apr. 13, 2018).

See Working Group on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, U.N. Hum. Rts. Off. of the High Commissioner, http://www.ohchr.org/EN/Issues/Business/Pages/WGHRandtransnationalcorporationsandotherbusiness.aspx (last visited Apr. 13, 2018).

IMT Advisory Opinion, *supra* note 6, at 9–10; *see also* Int'l Criminal Court, Understanding the International Criminal Court 4 (2011), https://www.icc-cpi.int/iccdocs/PIDS/publications/UICCEng.pdf ("The ICC does not replace national criminal justice systems; rather, it complements them. . .This is known as the principle of complementarity, under which priority is given to national systems. States retain primary responsibility for trying the perpetrators of the most serious of crimes."); *About Us*, Int'l Criminal Court, https://www.icc-cpi.int/about (last visited Apr. 13, 2018) (describing the ICC as a "court of last resort").

In the spirit of complementarity,²⁸ in a climate of growing awareness of the gravity of certain forms of conduct and the imperfect systems in place to deal with them, the IMT's efforts accord with the notion of the forum of "last resort." Especially welcomed was the IMT's efforts to illuminate the criminal liability of multinational companies and the recognition that there are varying levels of international legal personality that are subject to international law's normative standards. This points to the need to develop and reinforce new mechanisms for transnational corporate accountability.

Where matters concern relations across different legal jurisdictions between natural persons and corporations, the appropriate forum for hearing disputes is determined by the doctrine of Conflict of Laws. The question as to what would constitute a suitable forum,²⁹ in this instance is vexed because no judicial forum exists. In the vacuum, the IMT has assumed competence, whether on the basis of the interests of justice (*forum non conveniens*³⁰) or because no other available venue exists (*forum necessitatis*³¹) or whether

The International Criminal Court (ICC) was established on the basis of complementarity with states. Int'l Criminal Court, *supra* note 27, at 4. The principle of complementarity governs the exercise of jurisdiction of the ICC and recognizes that states have first responsibility and right to prosecute international crimes. *Id.* The ICC can exercise jurisdiction where national legal systems fail or where the states accede to the ICC's jurisdiction. *See id.* Based upon considerations of efficiency and effectiveness, the ICC is a complimentary jurisdiction that can be exercised when states prove unwilling or unable to respond. *Id.* The ICC is not intended to compete with states for jurisdiction, but rather to intervene only when the above conditions are met or when the U.N. Security Council refers a matter to the Office of the Prosecutor. *Id.*

To preside over a case, a court or tribunal must possess the power to hear the subject matter. See, e.g., Ian Brownlie, Principles of Public International Law 300-01 (7th ed. 2008); Jurisdiction, BLACK'S LAW DICTIONARY (10th ed. 2014) (defining jurisdiction as "[a] court's power to decide a case or issue a decree"). It is a generally-accepted principle that the country in which the human rights abuse occurred has jurisdiction over a claim this is the principle that links harm and territoriality. Brownlie, supra, at 301-03. The basis of this is a state's jurisdiction over all persons, property, and activities that occur within its boundaries and territory. Id. However, there has been a trend towards claims against multinational companies initiated in the country that the corporation is incorporated or domiciled. Cf. Daimler AG v. Bauman, 571 U.S. 117 (2014) (dismissing a suit by Argentinian residents against a German multinational corporation in California under the Alien Tort Statute and Torture Victims Protection Act for want of jurisdiction). This type of claim relies on nationality as opposed to the principle of territoriality. See generally Brownlie, supra at 303–04. Claims in the home country as opposed to the host country are complex and are only successful where it can be established that a claim taken in the effected territory would not be more suitable. See id.

According to the *forum non conveniens* doctrine, courts have the discretion to grant a stay on proceedings despite a real and substantial connection between the forum and the subject matter of the claim. Spiliada Mar. Corp. v. Cansulex, [1986] AC 460 (U.K.). The doctrine, mostly applied in common law traditions, has often granted stays in favor of the forum in which the case may be "tried more suitably for the interests of all the parties and the ends of justice." *Id*.

The basis of the legal doctrine of forum necessitatis is fairness. See Chilenye Nwapi, Jurisdiction by Necessity and Regulation of the Transnational Corporate Actor, 30 UTRECHT J. OF INT'L & EUR. L. 24, 24 (2014) ("Such jurisdiction serves as 'a safety valve' to avoid a total denial

the venue that exists would produce an inferior result (*ordre public*).³² All three legal doctrines provide a fulcrum to support the granting of legal authority.

The IMT draws authority from global citizenry; it is not a political symposium. The advisory opinion delivered is based on witness testimony, underpinned by expert scientific evidence.³³ Witness testimony is not parochial but proffered by citizen victims from various countries.³⁴ This is what makes the IMT a unique enterprise, with few equivalents across the world. The closest analogue is the Permanent Peoples Tribunal, which also includes eminent lawyers in its composition.³⁵ There are also investigatory or quasi-judicial bodies in the formal U.N. system, such as Commissions of Inquiry, Panels of Experts, and Fact-Finding Missions, appointed by the political bodies of the U.N. or the U.N. Secretary-General, that fulfil the function of judicial review.³⁶

One factor that distinguishes the IMT forum is that, in formal international adjudications, the parties opt in or out of the jurisdiction by means of:

(a) a general acceptance of jurisdiction;

of access to justice."). This is manifested strongly in the common law and jurisprudence in Civil Law traditions. See id. It allows a court to assert jurisdiction over a case even if the standard conditions are not fully met so long as no other forum that is capable of providing a fair trial is reasonably available to the victim. Id. There should be some connection between the forums. See id. at 28. The doctrine of necessity embedded in civil law legal traditions is arguably anchored in Article 6 of the European Convention on Human Rights, which is a pivot in facilitating victim access to legal remedies according to the Guiding Principles. See Convention for the Protection of Human Rights and Fundamental Freedoms art. 6, Nov. 4, 1950, E.T.S. No. 005 (guaranteeing the right to a fair and public hearing). It allows courts to accept a complaint for corporate human rights abuses even if the standard conditions for jurisdiction are not met—provided no other forum is available. See Nwapi, supra at 29 (observing that the provision for a public hearing in Article 6, "speaks to the need for exceptional jurisdictional policies that, serving as safety valves, cater for cases in which the established jurisdictional standards would be unworkable from an access-to-justice standpoint").

- In private international law, the doctrine of ordre public concerns the principles underpinning state legal systems. See Gerhart Husserl, Public Policy and Ordre Public, 25 VA. L. Rev. 37-67 (1983); M. Forde, The "Ordre Public" Exception and Adjudicative Jurisdiction Conventions, 29 Int'l & Comp. L. Q. 259-273 (1980). These principles interact with (and sometimes overlap) human rights. See de Lange, Roel The European Public Order, Constitutional Principles and Fundamental Human Rights 1 Erasmus L. Rev. 1 (2007). For those principles defined by the international community, states have leeway to consider the extent to which those international principles influence the operation of local law.
- 33 IMT Advisory Opinion, supra note 6, at 9–10.
- 34 Id. at 10.
- See id. at 9; see also About PPT: Mandate and Functions, Permanent People's Tribunal, http://permanentpeoplestribunal.org/mandate-and-functions/?lang=en (last visited Apr. 13, 2018).
- 36 E.g., U.N. Secretary-General, Rep. of the Secretary-General's Panel of Experts on Accountability in Sri Lanka (Mar. 31, 2011); U.N. Human Rights Council, Rep. of the Int'l Comm'n of Inquiry on Libya, U.N. Doc. A/HRC/19/68 (Mar. 8, 2012); U.N. Human Rights Council, Human Rights in Palestine and Other Occupied Arab Territories: Report of the United Nations Fact Finding Mission on the Gaza Conflict, U.N. Doc. A/HRC/12/48 (Sept. 25, 2009); see also José E. Alvarez, International Organizations as Law-Makers (2005).

- (b) a specific treaty jurisdictional clause;
- (c) a specific agreement to refer an individual case for adjudication; or
- (d) the parties concerned all consent to the jurisdiction of the relevant tribunal in relation to their special case.³⁷

Experience past and present has often demonstrated that parties are slow to submit to binding international adjudication where vital interests are concerned. Corporations overwhelmingly favor out-of-court settlements underpinned by politically-negotiated outcomes.³⁸ This means that aggrieved parties, who consider resorting to adjudication as a means of seeking legal redress, have limited options. At present, there is only the possibility of a civil suit in a domestic court.³⁹

Whilst the possibility of injunctive or interim measures exists, legal actions are usually protracted and binding judicial decisions are rare. Many environmental matters never make it into court, but rather result in settlements that are all too often legally and politically advantageous to the defendant multinational company. Why would they enter a court room if they could avoid it?⁴⁰

The IMT is an exemplar of a broader phenomenon of international peoples' tribunals, which have a substantial history, especially over the last 60 years.⁴¹ The first major

³⁷ See Int'l Criminal Court, supra note 27, at 4.

E.g., MacCarrick Amicus Brief, supra note 1, at 12; Robert B. Horwitz, "Negotiated Liberalization": Stakeholder Politics and Communication Sector Reform in South Africa (Sep. 24, 2001) (unpublished manuscript), https://arxiv.org/html/cs/0109097.

³⁹ Since the advent of the U.S. Alien Torts Act (ATS) it has been possible to scrutinize the human rights abuses of multinationals (provided they had a parent company registered in U.S.). See 28 U.S.C. 1350 (2012). In 1979, the first successful transnational human rights case was filed under the ATS, which entitles aliens to civil damages for violations of the law of nations. See generally Filartiga v. Pena-Irala, 630 F.2d 876 (2d Cir. 1980). However, even the most ardent supporters of transnational human rights suits concede, "the direct economic benefit to individual plaintiffs has been limited. Few ATS plaintiffs have received monetary compensation from their perpetrators." Roxanna Altholz, Chronicle of a Death Foretold: The Future of U.S. Human Rights Litigation Post-Kiobel, 102 CAL. L. REV. 1495, 1500-01 (2014). Scholars who have extensively studied the cases where human rights claims have been pursued under the ATS have concluded that it is not a fertile forum for good case law given the lack of enforcement with respect to judgments and the high dismissal rate. See Cortelyou C. Kenney, Measuring Transnational Human Rights, 48 FORDHAM L. REV. 1052, 1113 (2015) ("In a more perfect world, none of these human rights victims would have chosen to file civil lawsuits in the United States. But the combined efforts of international and domestic legal systems offer very little in the way of enforcement or compensation to them or others like them around the world. More importantly, civil litigation in their home countries and criminal prosecution of those responsible are both clearly impossible.") Beth Stephens, Taking Pride in International Human Rights Litigation, 2 CHI. J. INT'L L. 485, 486 (2001) (discussing the reasons human rights victims filed in the United States, including both substantive and procedural advantages of the U.S. legal system over those of foreign nations.).

MacCarrick Amicus Brief, *supra* note 1. Though Monsanto never presented any stated reason for its nonparticipation, the authors contend that this could be a reason that Monsanto chose not to participate in the IMT proceedings.

⁴¹ See IMT Advisory Opinion, supra note 6, at 9.

international peoples' tribunal of the post-World War II era was the Russell Tribunal, established by Bertrand Russell and colleagues, to inquire into the conduct of the war in Vietnam by the U.S. and its allies.⁴² The Russell Tribunal followed the legacy of the International Military Tribunals at Nuremberg and Tokyo that was being submerged under geo-political considerations. Jean-Paul Sartre, an organizer and member of the Russell Tribunal, wrote:

Why did we appoint ourselves? For the precise reason that no one else did it. Governments or peoples could have done it. But governments want to retain the ability to commit war crimes without running the risk of being judged; they are therefore not about to set up an international body responsible for judging them. As for the people, save in time of revolution they do not appoint tribunals; therefore they could not appoint us.⁴³

Although the Russell Tribunal was much criticized, it provided an important model for future tribunals and collected a significant amount of documentation, which brought to public notice events that might otherwise not have been revealed.⁴⁴ Professor Richard Falk commented that:

The Russell Tribunal may not have been "legal" as understood from conventional governmental perspectives, but it was "legitimate" in responding to double standards, by calling attention to massive crimes and dangerous criminals who otherwise enjoy a free pass, and by providing a reliable and comprehensive narrative account of criminal patterns of wrongdoing that destroy or disrupt the lives of entire societies and millions of people. As it happens, these societal initiatives require a great effort, and only occur where the criminality seems severe and extreme, and where a geopolitical mobilisation precludes inquiry by established institutions of criminal law.⁴⁵

The IMT and other forums of its type share familiar features such as the application of orthodox international law standards, a deliberative public process, collection and consideration of personal testimonies and expert evidence as the basis of its legal deliberation (rather than a conduit for furthering political and/or diplomatic agendas).⁴⁶ The IMT is a forum, albeit imperfect, for the formal determination of a claim based on evidence and articulated reasoning.⁴⁷ More than simply plugging jurisdictional gaps, the IMT offers a qualitatively different type of international justice, an important feature of

⁴² See generally Against the Crime of Silence: Proceedings of the International War Crimes Tribunal, (John Duffett ed., Simon & Schuster 1970) [hereinafter Against the Crime of Silence]; Prevent the Crime of Silence: Reports from the Sessions of the International War Crimes Tribunal founded by Bertrand Russell (Peter Limqueco & Peter Weiss eds., Allen Lane 1971).

⁴³ Against the Crime of Silence, supra note 42, at 33.

⁴⁴ E.g., IMT Advisory Opinion, supra note 6, at 9.

⁴⁵ Richard Falk, *Toward a Jurisprudence of Conscience*, GLOBAL JUSTICE IN THE 21ST CENTURY (Nov. 26, 2011), http://richardfalk.wordpress.com/2011/11/26/toward-a-jurisprudence-of-conscience.

⁴⁶ See Andrew Byrnes & Gabrielle Simm, Peoples' Tribunals, International Law and the Use of Force, 36 U. NEW S. WALES L. J. 711, 711–13 (2013).

⁴⁷ See IMT Advisory Opinion, supra note 6, at 9–10.

which is the right of global citizenry to seek justice and/or expose material facts that are not subject to state and non-state interference.

Usually, citizens' tribunals are organized on an ad hoc basis and make pronouncements on the applicability of existing international law to the legal situations that have been brought before them.⁴⁸ "Whether composed entirely of jurists or a mixture of jurists and other prominent intellectuals or highly respected international figures, [citizens' tribunals] have engaged in formal, public deliberative process, in which victims adduce evidence before the tribunal."⁴⁹

The Tribunal's Terms of Reference were initiated by a civil society group, rather than a state. ⁵⁰ Consequently, an opportunity exists for communities to claim access to a formal pronouncement on international law. While the pronouncements of the IMT have no official legal force, its legitimacy lies in the ability to mobilize consensus about the actions of a primary international law actor—in this case Monsanto—through the impact of public opinion. What separates the IMT from a politicized show trial is the stature, integrity, and expertise of its members, who facilitated an impartial process of evaluating evidence through reasoned and fair-minded deliberations that avoided considerations of realpolitik.

While the IMT lacks state authorisation or endorsement, the flip side is that peoples' tribunals can fulfil a role that state-authorized courts cannot. That is to say, they may be regarded as a transformative genesis facilitating the legal impetus to mobilize states to fill an identified gap in the international legal system. The IMT serves a precise function—an international adjudicative procedure where no other permanent institutional avenue exists. While it may be seen as a symbolic exercise—and in some ways it is—this does not detract from the fact that civil society has, over the decades, been an active participant and contributor to the development and fleshing out of peripherally contested aspects of international law.⁵¹

It is precisely because it sits outside of the state-endorsed and -controlled judicial arena that the Tribunal can regard itself as a precursor to an official court or tribunal. Louis Bickford refers to three functions that unofficial truth projects (in which category he would place this tribunal): first, as a replacement for an official body; second, as a precursor to such a commission, and third, as a complement to such a body.⁵²

The IMT stands to be a significant vanguard in providing a forum for new conversations in a campaign to compel states to reassess the need for enforcement mechanisms

⁴⁸ Byrnes & Simm, supra note 46, at 713.

⁴⁹ *Id.* The IMT Tribunal employed as its legal guidelines the (1) U.N. Guiding Principles on Business and Human Rights, adopted by the Council of the U.N. Human Rights June 2011, and (2) the Rome Statute establishing the International Criminal Court (ICC), giving it jurisdiction to try alleged perpetrators of genocide, crimes against humanity, war crimes and crimes of aggression. IMT Advisory Opinion, *supra* note 6, at 9, 11–12.

⁵⁰ See Tribunal, supra note 9.

J. Steffek & P. Nanz, Emergent Patterns of Civil Society Participation in Global and European Governance, Civil Society Participation in European and Global Governance. Transformations of the State (Steffek J., Kissling C., Nanz P. eds., Palgrave Macmillan 2008); See also Beth Stephens, Individuals Enforcing International Law: The Comparative and Historical Context, 52 DePaul L. Rev. 433, 447-450 (2002) (discussing the role that individuals play in the enforcement of international law).

⁵² Louis Bickford, Unofficial Truth Projects, 29 Human Rights Q. 994, 1004–05 (2007).

for environmental crimes, while simultaneously sending a warning to corporations that business activity is not a neutral activity. Consequently, the IMT should not be dismissed as "a motley collection of vigilantes." The work of the IMT complements statecentered mechanisms and is an alternative pathway that bridges the gap between established domestic law and case law on criminality of corporations. It does so by linking domestic doctrines and principles with international normative standards.

III. SIGNIFICANCE OF THE INTERNATIONAL MONSANTO TRIBUNAL FINDINGS

The Advisory Opinion delivered by the IMT on April 18, 2017, was significant for many reasons, most notable of which are:

- (a) The IMT made positive findings of human and civil rights violations (including the right to a healthy environment,⁵⁴ the right to food,⁵⁵ the right to health,⁵⁶ and the civil right to academic expression, upon which independent scientific research relies);⁵⁷
- (b) The IMT found links between human suffering and environmental devastation caused by the aerial use of chemical herbicide (Agent Orange) in Vietnam;⁵⁸
- (c) The IMT opined that, if the crime of Ecocide was inserted into international criminal law, the reported facts presented to the Tribunal could fall within the jurisdiction of the International Criminal Court (ICC);⁵⁹ and
- (d) The IMT adopted a working definition of Ecocide.⁶⁰ The IMT "observe[d] that there is no conceptual or normative obstacle to holding a corporation criminally responsible for an international crime."⁶¹

A. Business and Human Rights

In the Executive Summary of the Tribunal's Advisory Opinion, the six Terms of Reference were dealt with separately.⁶² The first question related to allegations that Monsanto had infringed on the right to a healthy environment.⁶³ The Tribunal con-

Kuala Lumpur War Crimes Commission Against George W Bush and Anthony L Blair, 1-CP-2011, Notes of Proceedings, Kuala Lumpur War Crimes Tribunal, at 49 (Nov. 19, 2011), https://www.legal-tools.org/doc/7a6bc0/pdf/.

⁵⁴ IMT Advisory Opinion, supra note 6, at 19.

⁵⁵ Id. at 24–25.

⁵⁶ Id. at 29.

⁵⁷ Id. at 36.

⁵⁸ *Id.* at 42–43.

⁵⁹ See id. at 46-47.

⁶⁰ Id.

⁶¹ Id. at 47.

⁶² See Int'l Monsanto Tribunal, Summary of the Advisory Opinion of the International Monsanto Tribunal 1-4 (2017), http://www.monsanto-tribunal.org/upload/asset_cache/1016160509.pdf [hereinafter IMT Summary].

⁶³ *Id.* at 1.

cluded that Monsanto had engaged in practices that negatively affect this human right.⁶⁴ Similarly, the Tribunal found that Monsanto had engaged in practices that have negatively affected the right to food and the right to health.⁶⁵ The Tribunal affirmed the testimonies of victims that attested to the fact that Monsanto, by its act or omissions, has been the primary agent in human suffering by violating the right to a healthy environment, the human right to the highest standards of attainable health, and the human right to food.⁶⁶

B. RIGHT TO INFORMATION AND FREEDOM OF EXPRESSION

The Tribunal also responded to the question of academic freedom. Specifically, the Tribunal held that Monsanto had negatively affected the right to free expression and right to information, indispensable to independent scientific research.⁶⁷ The Tribunal held that the right to information is key to safeguarding other rights such as the rights to health, food, water, and a healthy environment, and that a denial of independent expression in scientific research deprived society of the possibility to safeguard fundamental rights.⁶⁸ The Tribunal added that this abuse of academic freedom is exacerbated by Monsanto's continuing transgressions that expose human communities to harm.⁶⁹

Ecological devastation poses a significant threat to human populations at this historic juncture. To Hence, the Tribunal's Advisory Opinion cautioned that the international community must guarantee the freedom to conduct scientific research, teach, speak, and publish, subject to the norms and standards of scholarly inquiry, without interference or penalty, wherever the search for truth and understanding may lead. According to the Tribunal, the harms resulting from conduct that interferes with this ideal is amplified when such interference prevents society from safeguarding other fundamental human rights and exposes human communities around the world to health and accompanying environmental risks.

C. COMPLICITY IN WAR CRIMES

The Tribunal heard evidence that Monsanto produced and provided the chemical defoliant known as Agent Orange,⁷³ used by the United States military in an aerial

⁶⁴ *Id.* at 1; IMT Advisory Opinion, supra note 6, at 19.

⁶⁵ IMT SUMMARY, supra note 62, at 2–3; IMT Advisory Opinion, supra note 6, at 24–25, 29.

⁶⁶ IMT SUMMARY, supra note 62, at 2–3.

⁶⁷ Id. at 3; IMT Advisory Opinion, supra note 6, at 36.

⁶⁸ See IMT SUMMARY, supra note 62, at 3.

⁶⁹ Id.

See Oliver Milman, Rate of Environmental Degradation Puts Life on Earth at Risk, Say Scientists, Guardian (Jan. 15, 2015, 2:00 PM), https://www.theguardian.com/environment/2015/jan/15/rate-of-environmental-degradation-puts-life-on-earth-at-risk-say-scientists.

⁷¹ See IMT Advisory Opinion, supra note 6, at 35–39.

⁷² See id. at 38–39.

⁷³ See id. at 42 (citing Session on Agrochemical Transnational Corporations, Indictment and Verdict, Pesticide Action Network Permanent People's Trib., at 17 (2011)). The Tribunal heard evidence that Monsanto provided the chemical herbicide for the aerial spraying of nearly 76 million liters in Vietnam. *Id.* In the IMT Summary, the Tribunal stated that, "[t]his defoliating chemical has caused serious harm to health in the Vietnamese civilian population [a]nd the harm caused to American, New Zealand, Australian and Korean veter-

spraying campaign during the Vietnam War, which caused disastrous ecological and human health consequences including birth defects, diseases, illnesses and ultimately deaths, as seen in generations of Vietnamese and returned service personnel.⁷⁴ Notably, the Tribunal accepted studies tending to prove a direct link between the use of Agent Orange (and dioxins) and human suffering on a large scale arising from the resultant ecological devastation.⁷⁵ Although the Tribunal could not give a definitive answer on the question of complicity in war crimes, it did express the view that,"[if] the crime of [e]cocide [were] included in the Rome Statute and encompass[ed] environmental crimes as a fifth international crime, it could address those acts of destruction of the environment committed in Vietnam."⁷⁶ The Tribunal also expressed the view that Monsanto provided the means to inflict enduring ecological and human harm, possibly with the knowledge that the chemical substances it was providing for military efforts contained toxins destructive to the environment and humans.⁷⁷

D. THE QUESTION OF ECOCIDE

On the question of whether Monsanto's past and present activities could have caused substantive and lasting damage to biodiversity or ecosystems (ecosystem services), affecting the life and the health of human populations, the Tribunal was resolute. The IMT concurred with legal submissions outlined in the MacCarrick amicus brief, that the specific infractions identified in the factual allegations could substantiate the crime of Ecocide.⁷⁸ Specially, if Ecocide were a crime under the jurisdiction of the ICC, Monsanto could be criminally liable for the listed activities, including (but not limited to):

(a) The aerial spraying of Glyphosate mix via Plan Columbia;⁷⁹

ans has lead [sic] to court cases and to the recognition of Monsanto's responsibility, among others." IMT SUMMARY, *supra* note 62, at 3.

For additional reporting on the human health consequences of Agent Orange usage, see T. Fuller, 4 Decades On, U.S. Starts Cleanup of Agent Orange in Vietnam, N.Y. Times Aug. 10, 2012, at A4 (stating that a "chemical contaminant in Agent Orange [...] has been linked to cancers, birth defects and other diseases"); A. D. Ngo et al., Association Between Agent Orange and Birth Defects: Systematic Review and Meta-Analysis, 35 Int'l J. Epidemiology 1220, 1220 (2006) (concluding that "parental exposure to Agent Orange appears to be associated with an increased risk of birth defects").

⁷⁵ See IMT Advisory Opinion, supra note 6, at 42; IMT SUMMARY, supra note 62, at 3-4.

IMT Advisory Opinion, *supra* note 6, at 44–46. However, even then Monsanto's production of Agent Orange would not itself be prosecutable before the ICC as the ICC has no power to hear matters that relate to events prior to July 1, 2002. Rome Statute of the International Criminal Court, *supra* note 15, at art. 24; INT'L CRIMINAL COURT, *supra* note 27, at 4. The Rome Statute established the ICC based on the non-retroactivity principle; the temporal jurisdiction of the Court is prospective. *See* Rome Statute of the International Criminal Court, *supra* note 15, at art. 24.

⁷⁷ IMT SUMMARY, supra note 62, at 5.

⁷⁸ IMT Advisory Opinion, supra note 6, at 47–48; cf. MacCarrick Amicus Brief, supra note 1.

See id. at 47. According to the IMT Summary, Monsanto possibly aided and abetted the commission of Ecocide via the provision of a glyphosate-based chemical to the U.S. government for use in their program of aerial coca and poppy eradication in Colombia, Plan Colombia. See IMT Summary, supra note 62, at 4; see also Plan Colombia: Aerial Spraying in Colombia, Interamerican Ass'n for Envil. Def., http://www.aida-americas.org/our-work/

- (b) The genetic modification, use and promotion of genetically modified/engineered patented seeds;⁸⁰
- (c) Causing genetic contamination by cultivating and releasing genetically modified agricultural seeds;⁸¹
- (d) The pervasive use of agrochemicals on an industrial scale;82
- (e) Exclusively manufacturing and distributing polychlorinated biphenyl (PCB) a persistent (and toxic, chlorine-based) organic pollutant between 1930 and 1977, when it was banned.⁸³

The IMT heard evidence about Plan Colombia,⁸⁴ a military and diplomatic aid initiative, that was conceived by the U.S. and Colombian governments, and facilitated by Monsanto, who supplied concentrated glyphosate (a systemic herbicide and plant desicant) for the aerial fumigation and eradication of coca crops.⁸⁵ The Tribunal heard evidence that the relevant anti-narcotic efforts caused harm to human health and direct damages to legal agriculture.⁸⁶ It also heard that this aerial spraying campaign likely continues to adversely affect the ecology (including water sources, pastures, and live-

freshwater-preservation/plan-colombia-aerial-spraying-colombia (last visited Apr. 14, 2018).

⁸⁰ E.g., IMT Advisory Opinion, *supra* note 6, at 24–26. Monsanto could be criminally responsible for committing significant and durable damage to the environment as a direct result of its biotechnology activities. See id. at 47. Specifically, Monsanto, through its modification, use, and promotion of genetically modified and engineered, patented seeds has impacted the health, well-being, and food security of those populations that rely upon affected territories. See id. at 24–26.

⁸¹ E.g., id. at 25. Monsanto may be responsible for significant and durable damage (genetic contamination) caused by release and cultivation of their genetically modified agricultural seeds, which has introduced widespread risks and loss of biodiversity to effected ecosystems. See id.

⁸² *Id.* at 47. Monsanto is likely responsible for many significant effects of industrial-scale use of agrochemical. See *id.* at 23.

See id. at 29–30. But see Rome Statute of the International Criminal Court, supra note 15, at art. 24. For further discussions of PCB production, use, and restrictions, see Miquel Porta & E. Zumeta, Implementing the Stockholm Treaty on Persistent Organic Pollutants, 59 Occupational & Envil. Med. 651, 651–52 (2002); Uwe Beck & Eckhard Löser, Chlorinated Benzenes and Other Nucleus_Ichlorinated Aromatic Hydrocarbons, in Ullmann's Encyclopedia of Industrial Chemistry (7th ed. 2011); Mitchell D. Erickson & Robert G. Kaley II, Applications of Polychlorinated Biphenyls, 18 Envil. Sci. & Pollution Res. 135 (2011).

See IMT Advisory Opinion, *supra* note 6, at 20, 47. Plan Colombia was a controversial counter-narcotic, counter-terror initiative that has been widely criticized for violating human rights and causing widespread environmental damage. See, e.g., Natalio Cosoy, Has Plan Colombia Really Worked?, BBC (Feb. 4, 2016), http://www.bbc.com/news/world-latin-america-35491504. The aim was to eradicate drug and cash crops that funded the Revolutionary Armed Forces of Columbia People's Army (FARC). See June S. Beittel, Cong. Research Serv., RL32250, Colombia: Issues for Congress 21-23 (2009).

See IMT Advisory Opinion, *supra* note 6, at 47. For further commentary on the controversies of Plan Colombia, see Sue Branford & Hugh O'Shaughnessy, Chemical Warfare in Colombia: The Costs of Coca Fumigation (2005).

⁸⁶ See IMT Advisory Opinion, supra note 6, at 20, 47.

stock) and ecological services of certain Colombian territories⁸⁷ and has potentially severe effects on the fragile tropical rainforest.⁸⁸

The IMT also heard expert evidence of a more insidious and far-reaching malfeasance: the engineering of genetically-modified seeds. This evidence is supported by a developed body of published research which argues that GMO crops not only contaminate⁸⁹ but also disturb the organic and ecological balance of whole farming districts⁹⁰ by accelerating loss of biodiversity through mono-cultural intensive food production, underpinned by enormous reliance on chemical herbicide, whose toxicity can poison water sources and destroy plants.⁹¹ While acknowledging that the extent of adverse human

The Colombian government received over 6,500 complaints of collateral damage in just the first year of the program, and several independent parties verified widespread damage to crops, alternative development projects, fish stocks and pastureland. Betsy Marsh, Going to Extremes: The U.S.-Funded Aerial Eradication Program in Colombia, Latin America Working Group Education Fund 11–12 (March 2004), http://www.lawg.org/storage/documents/going%20to%20extremes.pdf. For example, in La Hormiga, a public health department investigation found that 12,000 hectares of farmland had been sprayed, with over 300,000 animal deaths reported. See S. Branford and H. O'Shaughnessy, Chemical Warfare in Colombia: The Costs of Coca Fumigation 88 (2005).

John Walsh et al., Wash. Office on Latin Am., Chemical Reactions: Fumigation: Spreading Coca and Threatening Colombia's Ecological and Cultural Diversity 2 (2008), https://www.wola.org/sites/default/files/downloadable/Andes/Colombia/past/WOLA%20Chemical%20Reactions%20February%202008.pdf ("Many of the regions classified as vulnerable and irreplaceable are also areas with a strong presence of coca cultivation," placing them at risk of destruction.).

Gerhart U. Ryffel, *Transgene Flow: Facts*, *Speculations and Possible Countermeasures*, 5 GM Crops & Food 249, 258 (2014) (concluding that unintended transgene escape occurred with three GMO crops, and countermeasures ought to be taken as soon as possible); *see also* Monsanto Co. v. Geertson Seed Farms, 561 U.S. 139, 153 (2010) (asserting that there is a "reasonable probability" that the complete deregulation of genetically-modified alfalfa seeds will infect the crops of neighboring farmers); Michelle Marvier & Rene C. Van Acker, *Can Crop Transgenes Be Kept on a Leash?*, 3 Frontiers in Ecology & Env't 93, 94 (2005) (confirming that transgenic contamination is a virtual certainty); Andreas Bauer-Panskus et al., *Cultivation-Independent Establishment of Genetically Engineered Plants in Natural Populations: Current Evidence and Implications for EU Regulation*, 25 Envtl Sci. Eur., Dec. 19, 2013, at 5 (concluding there is evidence that some GMO plants have transferred genetic information into natural populations).

See Dorothy Du, Rethinking Risks: Should Socioeconomic and Ethical Considerations be Incorporated into the Regulation of Genetically Modified Crops?, 26 Harv. J. L. & Tech. 376 (2012) (concluding the planting of GMO crops contributes to an industrial farming model that has decreased crop varieties and reduced biodiversity); see also Monsanto, 561 U.S. at 180 (Stevens, J., dissenting) ("[C]ontamination cannot be undone; it will destroy the crops of those farmers who do not sell genetically modified alfalfa."); see also Miguel A. Altieri and Maria Alice Garcia, Transgenic Crops: Implications for Biodiversity and Sustainable Agriculture, 25 Bull. Sci., Tech. & Soc'y 335-353 (Aug. 2005) ("The potential for genetically modified (GM) crops to threaten biodiversity conservation and sustainable agriculture is substantial.").

See Miguel A. Altieri, The Myth of Coexistence: Why Transgenic Crops Are Not Compatible with Agro-ecologically Based Systems of Production, 25 Bull. of Sci., Tech., & Soc'y 361 (2005) (affirming that risks to biodiversity arise from gene flow and toxicity to non-target

consequences is yet uncertain, the Tribunal was satisfied that, for the purposes of a finding of Ecocide, it is enough that Monsanto progressed and promoted its biotechnology regardless of the science, and failed to take measures of precaution in the face of real and significant environmental harm and human health risks.⁹²

Finally, the IMT determined that Monsanto is potentially criminally liable for the well-documented human health and environmental hazard associated with PCB exposure, namely the introduction of a persistent organic pollutant into the environment causing widespread, long-lasting, and severe environmental harm.⁹³In its Summary of its findings, the Tribunal stated:

Several of the company's activities may fall within this infraction, such as the manufacture and supply of glyphosate-based herbicides to Colombia in the context of its plan for aerial application on coca crops, which negatively impacted the environment and the health of local populations; the large-scale use of dangerous agrochemicals in industrial agriculture; and the engineering, production, introduction and release of genetically engineered crops. Severe contamination of plant diversity, soils and waters would also fall within the qualification of Ecocide. Finally, the introduction of persistent organic pollutants such as PCB into the environment causing widespread, long-lasting and severe environmental harm and affecting the right of future generations could fall within the qualification of Ecocide as well.⁹⁴

On the question of Ecocide, the IMT found—based on scientific studies and empirical evidence—that it is possible Monsanto has been responsible for damage to whole ecosystems⁹⁵ or, at the very least, possibly presided over and was complicit in supplying toxins (specifically, Agent Orange) that significantly and durably altered ecosystem ser-

organisms from GMO crops); see Charles M. Benbrook, *Trends in Glyphosate Herbicide Use in the United States and Globally*, 28 ENVTL. Sci. Eur., Feb. 2, 2016, at 13 (indicating that the concentration of glyphosate in surface and ground water will increase as use of the pesticide on GMO crops increase).

See IMT Advisory Opinion, supra note 6, at 47–48. In the face of scientific uncertainty, the precautionary principle is often employed as a guiding principle in international law when it comes to environmental decision-making. See James Cameron and Juli Abouchar, The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment, 14 Boston College Int'l and Comp. L. Rev. 1, 13 (1991) (indicating the Council of European Communities approved a measure to ensure the contained use of GMOs in order to prevent environmental harm); see also Daniel Bodansky, Scientific Uncertainty and the Precautionary Principle, 33 Envy'l Sci. and Pol'y for Sustainable Dev. 4 (1991) (explaining that in making decisions, regulators ought not wait for outcome certainty, but act in anticipation of environmental harm to ensure the harm does not occur); Lothar Gundling, The Status in International Law of the Principle of Precautionary Action 5 Int'l J. of Estuarine & Coastal L. 23 (1990) (indicating that the precautionary principle played a major role in the debate of the appropriate protection policy of the North Sea); The Precautionary Principle and International Law (David Freestone & Ellen Hey eds., 1995).

⁹³ See IMT Advisory Opinion, supra note 6, at 47–48.

⁹⁴ IMT SUMMARY, supra note 62, at 4; see also IMT Advisory Opinion, supra note 6, at 47–48.

⁹⁵ IMT Advisory Opinion, supra note 6, at 47.

vices that people relied upon for well-being and survival.⁹⁶ The Tribunal proffered the opinion that the time is ripe for a formal legal conceptualization of the crime of Ecocide and to integrate it into an amendment to the Rome Statute.⁹⁷

It is significant that the IMT adopted a definition of Ecocide that can be readily adopted and codified by states. The Tribunal agreed with the amicus curiae brief of Dr. Gwynn MacCarrick on a working definition of ecocide and described the actions (or actus reus) and the mental element (or mens rea) that constitutes the crime. ⁹⁸ This is significant because it gives clarity to how the crime might be designated in international criminal law and potentially prosecuted before an international court. Further, the IMT was emphatic that the crime be distinguished from the crime of genocide, stating that the Tribunal "does not assimilate the crime of ecocide to any of the forms of genocide contemplated in the Rome Statute and the 1948 Convention on the Prevention and Punishment of the Crime of Genocide."

In defining the new international crime, the IMT set out the legal parameters of criminal responsibility as encompassing both primary actors and those complicit in providing "practical assistance or encouragement that has substantial effect on the commission of a crime." ¹⁰⁰ Criminal complicity—or aiding and abetting—is an established legal doctrine in domestic and international law. ¹⁰¹ Application of this concept to corporations is not a novel idea. However, the IMT heralded a new era of corporate criminal responsibility by recognizing that criminal liability was not confined to natural persons. In its Advisory Opinion, the Tribunal stated:

Whereas the Rome Statute addresses individual responsibility of natural persons, this Tribunal observes that there is no conceptual or normative obstacle to holding a corporation criminally responsible for an international crime.¹⁰²

The general acceptance that a corporation—as a legal person—can be held criminally liable for the acts and omissions of the natural persons it employs signifies a major shift in international criminal law. However, while the Rome Statute has not provided for this type of defendant, ¹⁰³ this is not to say that such a criminal prosecution is unprecedented. ¹⁰⁴ It is therefore anticipated that corporate criminal responsibility could ad-

⁹⁶ Id. at 43.

⁹⁷ Id.

⁹⁸ Compare id. at 46–47, with MacCarrick Amicus Brief, supra note 0, at 65–69.

⁹⁹ IMT Advisory Opinion, supra note 6, at 47.

¹⁰⁰ *Id.* (quoting United Nations, Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework (2011)).

¹⁰¹ Rome Statute of the International Criminal Court, supra note 15, at art. 25(3)(c).

¹⁰² IMT Advisory Opinion, supra note 6, at 47.

¹⁰³ See Rome Statute of the International Criminal Court, *supra* note 15, at art. 25 (limiting the Court's competence to natural persons).

For an exploration of the 'doctrine of identification' and special rules of attribution fixing a corporation with liability for crimes, see Amanda Pinto & Martin Evans, Corporate Criminal Liability (3d ed. 2013); Mordechai Kremnitzer, A Possible Case for Imposing Criminal Liability on Corporations in International Criminal Law, 8 J. Int'l Crim. Just. 909, 914 (2010); Harmen van der Wilt, Corporate Criminal Responsibility for International Crimes: Exploring the Possibilities, 12 Chinese J. Int'l L. 43, 58 (2013); David Kinley & Junko

vance in the same way that the body of international criminal law rapidly evolved in two and a half decades (1918–1945, the inter-war years) to recognize the notion of individual criminal responsibility for crimes committed by individual actors.

Owing to the scale of environmental harm required for Ecocide, the most common perpetrators would be corporations. A legal reality is that the expanded notion of corporate criminal responsibility and the International Criminal Court's (ICC) proposed jurisdiction over fictional persons is a necessary amendment to the Rome Statute if there is to be any real likelihood of a successful criminal prosecution for Ecocide. ¹⁰⁵

IV. THE INTERNATIONAL SIGNIFICANCE OF THE IMT ADVISORY OPINION

The significance of the International Monsanto Tribunal is both symbolic and material. Civil society and the international legal community looked to this Tribunal for an authoritative judgment and the people's court delivered a tangible result. In its Advisory Opinion, the IMT gave guidance on the future direction of international law and elucidated the content of the human rights responsibilities of corporations. ¹⁰⁶

This ambitious citizen's initiative helped to inform the debate on whether international criminal law should recognize the crime of Ecocide. We now know that the actions of Monsanto—such as those outlined in victim statements and contained in submissions before this Tribunal—likely caused and continue to cause real, immediate, and transgenerational harm.¹⁰⁷ We can extrapolate from the Advisory Opinion that, if the crime of Ecocide existed in international law, Monsanto could be held criminally liable for aiding and abetting the aerial spraying campaigns in Vietnam and Colombia. It could also be held liable for the modification and promotion of transgenic crops, and the resulting contamination and loss of biodiversity. Further, Monsanto could be held to account for its industrial model of agricultural production that promotes a reliance upon excessively high volume of agrochemicals, with associated ecological and human health

Tadaki, From Talk to Walk: The Emergence of Human Rights Responsibilities for Corporations at International Law, 44 VA. J. Int'l L. 931, 980 (2004). For an example of cases where corporations have been successfully prosecuted, see Doe I v. UNOCAL Corp., 395 F.3d 932, 939 (9th Cir. 2002). Dr. Maogoto submitted to the Tribunal—in a written brief on the issue of complicity to war crimes—extensive legal arguments setting out the issues relating to corporate criminal responsibility. See Jackson Maogoto, Brief on War Crimes, Advisory Opinion, Int'l Monsanto Trib. (Oct. 1, 2016), http://www.monsanto-tribunal.org/upload/asset_cache/971889519.pdf.

See Lynn Verrydt, Corporate Involvement in International Crimes: An Analysis of the Hypothetical Extension of the International Criminal Court's Mandate to Include Legal Persons, in Regulating Corporate Criminal Liability 273, 282 (Dominik Brodowski et al. eds., 2014); see also Jennifer Zerk, Corporate Liability for Gross Human Rights Abuses: Towards a Fairer and More Effective System of Domestic Law Remedies (2013) (indicating that the Office of the U.N. High Commissioner for Human Rights wishes to create an avenue to litigate corporate human rights abuses in order to remedy those who fall victim to said abuses).

¹⁰⁶ See generally IMT Advisory Opinion, supra note 6, at 9–12.

¹⁰⁷ E.g., id. at 42–43.

risks.¹⁰⁸ Finally, Monsanto could be held to account for the exclusive manufacture of the persistent organic pollutant polychlorinated biphenyls (PCBs) and the associated ecological and human health risks.¹⁰⁹

The Tribunal recognized that, while international environment law has matured through the adoption of treaties and conventions, international criminal and humanitarian law remain insufficient in addressing significant ecological harm in peacetime. This is owing to three main reasons. First, the current standards on ecological damage lack uniformity and clear standards. Second, provisions are spread across dozens of international instruments (some binding, some non-binding). Last, the nature of enforcement mechanisms vary and generally lack coherence, thus frustrating the development of any reasoned domestic or international jurisprudence. These impediments could be mitigated with one amendment to the Rome Statute. In the absence of codified laws, there exists no permanent international mechanism to monitor or adjudicate environmental crimes.

The Tribunal highlighted that the task of prosecuting environmental crime is beyond national sovereignty. This is for a number of reasons, namely the constraints of state sovereignty, the transnationality of corporations, and the nature of the resource sought to be protected. Owing to the fact that the exploitation of resources has always been the entitlement of statehood, states are often placed in a conflict of interest, proving unwilling or unable to respond. In any case, the defendant corporations themselves are amorphous and their business is not confined to one jurisdiction. In addition, the resource sought to be protected in a criminal prosecution is the natural environment, made up of assets common to all humanity that move beyond state territorial boundaries: collectively shared resources, global commons, fragile ecosystems with indeterminate boundaries, and ecosystem services that sustain all living beings.

The Tribunal also highlighted that the task of responding to systemic ecological threats has moved beyond the capacity of environmental law to regulate.¹¹⁹ Over the last few decades, environmental law has evolved to protect against ecological harm by estab-

¹⁰⁸ See, e.g., id. at 24-26.

See id. at 29–30. But see Rome Statute of the International Criminal Court, supra note 15, at art. 24

¹¹⁰ IMT Advisory Opinion, supra note 6, at 47.

¹¹¹ See id. at 9-11.

¹¹² Id. at 11.

¹¹³ *Id.* (The applicable international treaties are not binding on non-state actors and often merely serve as guidelines.).

Some scholars have suggested that a separate environmental court (with its own registry) should be established within the international criminal court mechanisms. Alessandra Lehmen, The Case for Creation of an International Environment Court: Non-State Actors and International Environmental Disputes, 26 Colo. Nat. Res., Energy, & Envtl. L. Rev. 179 (2015).

¹¹⁵ IMT Advisory Opinion, supra note 6, at 46.

¹¹⁶ See id. at 51-3.

¹¹⁷ See id.

¹¹⁸ See id. at 51.

¹¹⁹ Id.

lishing a framework of treaties and legal instruments aimed at cooperation.¹²⁰ This can be attributed to the increased awareness of the dangers that degrading the natural environment poses to humankind. However, the development of international environmental law seems inept at tailoring specific protection for collective commons (ecosystem services, biodiversity, genetic material) in circumstances where they fall within an indeterminate territory that is not aligned with state boundaries. As a result, the applicability of existing environmental treaties is often uncertain.¹²¹ These gaps in international law allow large corporation to operate in a legal grey zone. As a consequence, there are no existing legal mechanisms for dealing with the type of crime Monsanto perpetrated. As such, the Tribunal concluded that the international community—for the sake of the natural environment and the human populations that depend on it for their livelihood and well-being—ought to address the issues identified.¹²² This is in line with the Oslo Principles on Global Climate Change Obligations, which pronounces that "[a]voiding severe global catastrophe is a moral and a legal imperative."¹²³

As with all new laws, defining Ecocide will involve international input and will almost certainly encounter resistance from vested interests. Perhaps the answer lies in transferring the subject matter of environmental destruction from the civil to the criminal arena, allowing international enforcement mechanisms to prosecute perpetrators of environmental harms. This would shift the emphasis away from compensation for loss to the acknowledgement of responsibility and accountability for criminal wrongs.

This Tribunal demonstrated that a concerted, worldwide legal effort is necessary to curtail the greatest harms. At the same time, it underscored—in real terms—the contribution that criminal law can make towards addressing the worst examples of ecological destruction. There is already momentum in this direction, as evidenced in a recent announcement by the ICC Chief Prosecutor that the court will broaden its remit to include environmental crimes. It remains to be seen how realistic this is in the absence of an introduced amendment to the Rome Statute.

¹²⁰ See, e.g., Paris Agreement, Apr. 22, 2016, http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf (representing a recognition that national environmental law is insufficient to address the concerns over global climate change).

¹²¹ IMT Advisory Opinion, supra note 6, at 51–52.

¹²² Id. at 43, 47.

¹²³ Expert Grp. on Glob. Climate Change Obligations, Oslo Principles on Global Climate Change Obligations 1 (2015).

When we combine the universal impact of the offense upon the global commons and the fact that the current protective legal framework is ineffectual at responding to even the gravest cases of environmental harm, there is a heightened need for a coordinated international legal response that would complement state jurisdiction.

¹²⁵ The IMT Advisory Opinion followed the recent announcement by the International Criminal Court Chief Prosecutor Fatou Bensouda that the ICC would direct its prosecutions to "give particular consideration to prosecuting Rome Statute crimes that are committed by means of, or the result in, inter alia, the destruction of the environment, the illegal exploitation of natural resources or the illegal dispossession of land." Office of the Prosecutor, Int'l Criminal Court [ICC], Policy Paper on Case Selection and Prioritization, at 4, 14 (Sept. 15, 2016).

Undoubtedly, the success of criminal prosecutions brought under the emerging crime of Ecocide will inevitably rest with the prosecution of the most serious examples of harm, and the most obvious instances of environmental crimes. While it may take time for the jurisprudence on Ecocide—and more broadly environmental harm—to develop more nuanced coherent language, the recognition of the crime of Ecocide brings to the table a concept underpinned by legal parameters both direct and indirect under extant international law norms. The IMT has drawn a metaphorical line in the sand. A failure by the global community to respond will leave humanity at the mercy of environmentally predatory activities by multinational corporations either on their own or in complicity with state actors.

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REGULATING FOOD WASTE

By Sarah J. Morath

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Despite all the options—the beggar's basket, the grease pot, the slop pail, the hash or ragout—some food waste might remain. Most of it could be dried and burned in the kitchen range, the easiest alternative in the winter. It might also be dug into the ground. In either case it would not be wasted, providing heat on the one hand and soil nutrients on the other.¹

[L]eftovers have always been uncomfortably close to garbage, and that proximity became glaringly obvious when leftovers lost both their economic and moral urgency.²

The most environmentally damaging form of human consumption is eating.³

I. Introduction

In her book *Waste and Want*, history Professor Susan Strasser vividly describes America's relationship with consumption, poverty, and waste from Colonial times to the present.⁴ Food plays a central role in her discussion. Strasser describes how, in the early 19th century, leftovers and food scraps were considered "useful byproducts" of cooking

¹ Susan Strasser, Waste and Want: A Social History of Trash 38 (2000).

Helen Veit, An Economic History of Leftovers, Atlantic (Oct. 7, 2015), http://www.theatlantic.com/business/archive/2015/10/an-economic-history-of-leftovers/409255.

Paul R. Ehrlich, A Personal View: Environmental Education—Its Content and Delivery, 1 J. Envtl. Stud. & Sci. 6, 8 (2011).

⁴ See Strasser, supra note 1, at 3.

and eating.⁵ The best food scraps, which could include "compounds of meat, gristle, skin, fat, and burnt fiber," were minced and made into meals such as "hashes, mincemeats, bread pudding, meat pie, fish salads, cheese fondue, or Welsh rarebit" and eaten soon after their preparation.⁶ Leftovers might also be consumed by servants or given away to beggars.⁷ Moldy bread became edible by removing the tainted part and warming what remained in the oven. Spoiled lard could be mixed with potatoes.⁸

Inedible scraps wound up in swill barrels or slop buckets, which were commonplace in the country kitchen. Once full of kitchen refuse, these containers would be carried outside to feed cows, hogs, and poultry. Livestock were also fed by the food scraps of urban dwellers who threw unwanted food out doors and windows. Cooking grease was captured and reused in subsequent meals or turned into candles or soap. Bones were whittled into "knife handles, hair ornaments, buttons, . . . dice and dominoes. These examples make clear that most people in early America "threw away relatively little, Italian including food.

In the early 1900s, food was conserved for different reasons. Historian Helen Zoe Veit, author of *Modern Food*, *Moral Food*, describes how wasting food was considered shameful and unpatriotic.¹⁴ During this time "[h]igh food prices at home and food shortages abroad confirmed the moral mandate to rethink the rules by which Americans ate."¹⁵ No formal rules were enacted, but because of government-led wartime food-conservation campaigns and the Progressive era's emphasis on self-control, Americans felt compelled to change behavior and demonstrate conservation around food for moral reasons.¹⁶ The Great Depression in the 1930s saw attitudes towards food waste influenced by another factor—economics.¹⁷

My views about food waste developed as a child growing up in the late 20th century. Even though I detested lima beans, I was encouraged to be part of the "clean plate club." My frugal grandmother who lived through the Depression would wrap uneaten dinner rolls in her napkin, placing them in her pocketbook "for later" before leaving the local diner. My thrifty father rummaged through the "dented can" bin at the supermarket checkout looking for discounted (and misshapen) cans of soup, beans, or tuna fish. My mother would walk to the grocery store almost daily to purchase dinner ingredients, and

⁵ Id. at 29.

⁶ Id. at 34.

⁷ Id. at 36–37.

⁸ Id. at 33.

⁹ Id. at 29.

¹⁰ *Id.* at 29. This practice also led to sanitation and health concerns. *See* Comm. for the Study of the Future of Pub. Health, The Future of Public Health 58 (1988).

¹¹ Id. at 30.

¹² Id. at 103.

¹³ Id. at 113.

See Helen Zoe Veit, Modern Food, Moral Food 4 (2013) (describing food conservation as having moral and economic urgency during this time).

¹⁵ Id.

¹⁶ Id.

Mary McVean, Food Lessons from the Great Depression, L.A. TIMES (Dec. 10, 2008), http://www.latimes.com/style/la-fo-depression10-2008dec10-story.html.

she would make our favorite chocolate cake when milk soured. In my house, very little spoiled and very little was thrown away.

Spurred by industrialization, consumerism, cheap food, and disposable products, America's thrifty nature has been transformed into a "throwaway society." In 2014, Americans generated 258.5 million tons of waste. The average person generated 4.44 pounds of garbage per day. In comparison, in 1960, Americans generated 88.1 million tons of waste and the average person generated 2.68 pounds of garbage. In 2014, food waste was the second largest component of the 258 million tons of waste generated. And after recycling and composting is taken into consideration, food waste is the greatest component of discarded waste and, therefore, the largest contributor to landfills. In 2015, Americans generated 2.68 pounds of garbage.

In part because of statistics like these, food waste has become a topic of national and international concern, and an assortment of responses have developed. Governments, businesses, and individuals have taken action, and public and private sectors are using a variety of regulatory tools, both formal and informal, to address this issue. The French government has outlawed food waste by grocery stores. Apps Francisco has mandated residential composing. Some retail grocery stores now sell imperfect produce. Apps have been developed to help consumers make the most of leftovers. Freeganism—the practice of reclaiming and eating food that has been discarded—and dumpster diving are becoming more commonplace.

Ben Cosgrove, "Throwaway City": When Tossing out Everything was the Rage, TIME (May 15, 2014) http://time.com/3879873/throwaway-living-when-tossing-it-all-was-all-the-rage.

¹⁹ Envil. Prot. Agency, Advancing Sustainable Materials Management: 2014 Fact Sheet 2 (2016). The term "waste" used here refers to municipal solid waste which includes food waste. *Id.* at 4.

²⁰ Id. at 2.

²¹ Id.

²² Id. at 7.

²³ Id.

Angelique Chrisafis, France to Force Big Supermarkets to Give Unsold Food to Charities, Guardian (May 22, 2015), http://www.theguardian.com/world/2015/may/22/france-to-force-big-supermarkets-to-give-away-unsold-food-to-charity.

²⁵ Recycling and Composting in San Francisco – Frequently Asked Questions (FAQs), S.F. Dep't Env't (2017), http://www.sfenvironment.org/article/recycling-and-composting/mandatory-recycling-and-composting-ordinance.

Allison Aubrey, *To Tackle Food Waste*, Big Grocery Chain Will Sell Produce Rejects, NAT'L PUB. RADIO (June 17, 2015), http://www.npr.org/sections/thesalt/2015/06/17/414986650/to-tackle-food-waste-big-grocery-chain-will-sell-produce-rejects.

²⁷ E.g. Love Food Hate Waste, https://www.lovefoodhatewaste.com (last visited Feb. 16, 2017). The United States Department of Agriculture (USDA) has also developed an app called the FoodKeeper to help individuals maximize the shelf-life of various foods. See Christopher Bernstein, New USDA 'FoodKeeper' App: Your New Tool for Smart Food Storage, U.S. Dep't of Agric.: Blog (Apr. 2, 2015), http://blogs.usda.gov/2015/04/02/new-usda-foodkeeper-app-your-new-tool-for-smart-food-storage.

Anne Kadet, Free, But Not Always Easy, Wall Street J. (Aug. 31, 2012), http://www.wsj.com/articles/SB10000872396390443864204577623450975970554; Sarah Pulliam Bailey, Dumpster Diving as an Act of Faith, Wash. Post (Feb. 20, 2014), https://www.washington.post.com/news/in-sight/wp/2016/07/01/free-food-you-just-need-to-know-where-to-look.

Scholars recognize that a multi-facetted legal approach, with involvement from government and private entities, is the best way to address environmental issues, particularly those that center on sustainability and individual behavior.²⁹ This article evaluates efforts to address one such problem, food waste,³⁰ in light of what regulatory instruments are available and who is in a position to select the regulatory instrument. Using the taxonomy developed by Lawrence Lessig,³¹ this Article describes how food waste is currently being regulated through laws or mandates, social norms, markets, and architecture, by public and private entities.

Part II describes food waste as a complex problem, occurring across the globe at all stages of the food supply chain and implicating environmental, social, and economic concerns. Because food waste in the U.S. is largely the result of human behavior, as opposed to technological inefficiencies or poor infrastructure, Part III summarizes legal scholarship addressing the regulation of human behavior to prevent environmental harm. Part III also discusses the various regulatory tools available, including the taxonomy developed by Lawrence Lessig, and their application to individual behavior and environmental harms. Using specific examples, Part IV illustrates how mandates or laws, social norms, market mechanisms, and architecture are all being invoked in efforts to reduce food waste. These examples demonstrate that the government is not the only entity capable of regulating food waste. Instead, food waste is being addressed through "global environmental governance." Governments at the federal, state, and local level, private business firms, NGOs, and individuals acting as consumers and citizens are all contributing to the fight against food waste. A broad spectrum of food waste fighters exists and they are using a variety of regulatory tools and instruments.

In light of this observation, Part V makes three suggestions for future endeavors. First, there appears to be an overreliance on mandates at the expense of other, informal regulatory tools, including social norms and architecture. The most common mandates, food-waste bans, address disposal patterns but not consumption behaviors or environmental harms that arise from producing and transporting food that is eventually lost. In addition, municipalities may lack the infrastructure to accommodate food-waste streams. These concerns justify using informal regulatory tools to combat food waste. Second, more attention should be given to food waste generated at the production stage. A large amount of food waste occurs in the fields and on the way to market and, in some ways, regulating waste at this point might be easier than at the consumption stage because there are fewer entities to regulate. Third, not all food is wasted at the same rates and not all food waste has the same environmental impact. As a result, greater effort should be made to differentiate between different types of food wasted (e.g. meat, dairy, produce, etc.). Refocusing food waste efforts in these three areas—the mechanism or tool

²⁹ See infra Part IV.

[&]quot;Food waste" has a number of different definitions. In this article, I use food waste to refer to as "[w]holesome edible material intended for human consumption, arising at any point in the [food supply] that is instead discarded, lost, degraded or consumed by pests." See Julian Parfitt et al., Food Waste Within Food Supply Chains: Quantification and Potential for Change to 2050, 365 Phil. Transactions Royal Socy B 3065, 3065 (2010).

³¹ See infra Part IV.

³² Sarah E. Light & Eric W. Orts, Parallels in Public and Private Environmental Governance, 5 MICH. J. ENVTL. & ADMIN. L. 1, 10 (2015).

used, the location within the food chain where waste is occurring, and the type of food wasted—will make efforts to regulate food waste more robust and efficient.

II. FOOD WASTE: THE NEXT CHAPTER OF THE SUSTAINABLE FOOD MOVEMENT

Despite America's history of frugality, food waste has become the problem that everyone is talking about: activists,³³ chefs,³⁴ comedians,³⁵ even the Pope.³⁶ Books like Jonathan Bloom's American Wasteland, Tristram Stuart's Waste: Uncovering the Global Food Scandal, and movies like Just Eat It³⁷ have added to the discussion. News outlets across the country have run numerous articles and commentaries on this topic in print and online. National Public Radio (NPR),³⁸ PBS,³⁹ the Wall Street Journal,⁴⁰ the New York Times,⁴¹ Washington Post,⁴² Grist,⁴³ and Mother Jones⁴⁴ have each had at least one article or story on this topic since 2015.

- For example, Tristram Stuart is the co-founder of Feedback, an environmental organization that campaigns to end food waste at every level in the food system. *Our Team*, FEED BACK, http://feedbackglobal.org/about-us/people (last visited Apr. 13, 2018). Writer Jonathon Bloom blogs about food waste at http://www.wastedfood.com.
- For example, Jamie Oliver is a chef in the UK committed to fighting food waste. See, e.g., Food Waste, Jamie Oliver, http://www.jamieoliver.com/food-waste/#gcmck4rRWEZdXpJl.97 (last visited Apr. 13, 2018). Dan Barber is a chef in the U.S. who recently hosted a WastED pop-up. See Chris Fuhrmeister, Dan Barber Is Putting Food Waste on the Menu in London, Eater (Jan. 12, 2017), https://www.eater.com/2017/1/12/14256476/wasted-pop-up-london-dan-barber-food-waste.
- For example, John Oliver is the host of Last Night Tonight on HBO. Last Week Tonight with John Oliver, HBO, https://www.hbo.com/last-week-tonight-with-john-oliver (last visited Apr. 13, 2018).
- In an encyclical, the Pope acknowledges that "approximately a third of all food produced is discarded, and 'whenever food is thrown out it is as if it were stolen from the table of the poor." Pope Francis, Encyclical Letter Laudato Si' of the Holy Father Francis on Care for Our Common Home 36 (2015). He also criticizes our "throwaway culture." Id. at 14. "We have not yet managed to adopt a circular model of production capable of preserving resources for present and future generations, while limiting as much as possible the use of non-renewable resources, moderating their consumption, maximizing their efficient use, reusing and recycling them." Id. at 18.
- 37 JUST EAT IT (Peg Leg Films 2014).
- National Public Radio (NPR) has an entire webpage dedicated to stories it has run on food waste. See Stories About Food Waste, NAT'L PUB. RADIO, http://www.npr.org/tags/1411232 94/food-waste (last visited Apr. 14, 2018).
- 39 The Next Food Movement? Maybe Garbage-to-Plate Dining, PBS (Sept. 8, 2015), http://www.pbs.org/newshour/bb/next-food-movement-maybe-garbage-plate-dining.
- Oliver Schwaner-Albright, *Five-Star Dining on Leftover Scraps?* Wall Street J. (June 22, 2015), http://www.wsj.com/articles/zero-waste-restaurants-five-star-dining-on-leftover-scraps-1434386371.
- 41 Ron Nixon, Food Waste Is Becoming Serious Economic and Environmental Issue, Report Says, N.Y. TIMES, Feb. 25, 2015, at A18.

Although there has been a great deal of discussion about food policy as part of the sustainable food movement, specific discussions about food waste were not common until very recently.⁴⁵ The sustainable food movement⁴⁶ largely focused on the front end of the food system—the growing, processing, and transporting of food to the consumer—rather than the tail end of the food system—the disposal of uneaten food.⁴⁷ Take, for instance, the phrase "farm to fork" or "farm to table." Those who use this phrase recognize that food in our food system moves through various stages: from production to consumption. Yet, the phrase does not necessarily contemplate food waste that occurs at any one of a number of points in the system, including food waste that results from crops that are not harvested from the field or from food produced that is not purchased at the store.

The issue of food waste resonates with many people because it implicates environmental and social values⁴⁸ and raises questions about food inequality, economic effi-

⁴² Roberto A. Ferdman, Seattle is Now Publicly Shaming People for Putting Food in Their Trash Bins, Wash. Post (Jan. 27, 2015) http://www.washingtonpost.com/blogs/wonkblog/wp/2015/01/27/seattle-is-now-publicly-shaming-people-for-putting-food-in-their-trash-bins.

⁴³ Suzanne Jacobs, *Demark Wages War on Food Waste*, Grist (Sept. 2, 2015), http://grist.org/news/denmark-wages-war-on-food-waste.; John Light, *States Crack Down on Food Waste*, Grist (Sept. 3, 2015), http://grist.org/food/states-crack-down-on-food-waste-starting-with-cafeterias-and-cafes.

Bryan Schatz, You're Wasting More Food Than You Think, MOTHER JONES (June 10, 2015), http://www.motherjones.com/environment/2015/06/youre-wasting-more-food-you-think.

There are exceptions to this. For example, the Garbage Project out of the University of Arizona was studying household food waste in the 1970s. See Gail Harrison et al., Food Waste Behavior in Urban Population, 7 J. NUTRITION EDUC. 13, 13 (1975). This study found that households in the 70s wasted \$80 to \$100 of edible food per year. Id. at 15.

The "sustainable food movement" includes a number of "food movements" including the local food movement, the organic movement, the slow food movement, and the "new American" food movement. Stephanie Tai, The Rise of U.S. Food Sustainability Litigation, 85 SOUTHERN CAL. L. REV. 1069, 1072 (2012); Sarah J. Morath, The Farmer in Chief: Obama's Local Food Legacy, 93 OR. L. REV. 91, 97 (2014) (describing the local food as part of the sustainable food movement); see also Michael Pollan, The Food Movement, Rising, N.Y. REV. BOOKS (June 10, 2010), http://www.nybooks.com/articles/2010/06/10/food-movement-rising (describing the food movement as a "splintered" social movement that includes "school lunch reform; the campaign for animal rights and welfare; the campaign against genetically modified crops; the rise of organic and locally produced food; efforts to combat obesity and type 2 diabetes; 'food sovereignty' (the principle that nations should be allowed to decide their agricultural policies rather than submit to free trade regimes); farm bill reform; food safety regulation; farmland preservation; student organizing around food issues on campus; efforts to promote urban agriculture and ensure that communities have access to healthy food; initiatives to create gardens and cooking classes in schools; farm worker rights; nutrition labeling; feedlot pollution; and the various efforts to regulate food ingredients and marketing, especially to kids").

⁴⁷ Bret C. Birdsong, From "Food Miles" to "Moneyball": How We Should Be Thinking About Food and Climate, 65 Me. L. Rev. 409, 422 (2013) ("[Food] waste seems to be a generally overlooked aspect of the food system.").

⁴⁸ Strasser, supra note 1, at 28; see Marcia Hill Gossard & Richard York, Social Structural Influences in Meat Consumption, 10 Res. Hum. Ecology 1, 1 (2003) (explaining that social psychological factors, such as values and beliefs, have a substantial influence on consumer

ciency, and sustainability. Recent studies report that 40% of food in the United States goes uneaten.⁴⁹ Most of this uneaten food ends up in landfills, where decomposing organic waste contributes to 16% of the United States' methane emissions.⁵⁰ Wasted food is also wasted water, chemicals, energy, and land, and a wasted source of food for those in need.⁵¹ Food saved by reducing losses by just 15% could feed more than 25 million Americans every year.⁵² In some cultures, the ability to purchase meat is a sign of affluence and sharing meat creates personal bonds.⁵³ In other cultures, wasting food is strongly discouraged.⁵⁴ Throwing away edible food invokes shock and injustice, especially since so many people do not have enough food.

Currently, the United States is experiencing a flurry of activity by a variety of actors to address the growing food waste problem: food waste bans or composting laws,⁵⁵ the USDA/EPA's U.S. Food Waste Challenge⁵⁶ and the U.S. Food Recovery Challenge in 2013,⁵⁷ a growing anaerobic digestion industry,⁵⁸ and "trayless Tuesdays" or the banishment of trays from cafeterias on specific days,⁵⁹ are just a few examples that suggest that individuals, businesses, and institutions at the local, state, and federal levels are interested in confronting food waste. Discussions of food waste reflect a greater understanding that our food system operates as a "system," that is, that there are various elements within the system that are interconnected.⁶⁰ Food waste is not only an element that can

demand for various food types). Food also invokes tradition and cultural norms, as well as values and beliefs. See id.

⁴⁹ Dana Gunders, Nat. Res. Def. Council, Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill 4 (2012).

⁵⁰ *Id.* Methane is a greenhouse gas. *Id.* at 7.

⁵¹ Id. at 4.

⁵² Id.

Vaclav Smil, Eating Meat: Evolution, Patterns, and Consequences, 28 Population & Dev. Rev., 599, 599 (2002).

For example, the Quran forbids excessive consumption of food and shuns waste. E.g. Ouran 6:141.

⁵⁵ See, e.g., Wasted Food Programs and Resources Across the United States, ENVTL. PROT. AGENCY, https://www.epa.gov/sustainable-management-food/wasted-food-programs-and-resources-across-united-states (last visited Feb. 13, 2018).

⁵⁶ See The U.S. Food Loss and Waste Challenge, U.S. Dep't Agric., https://www.usda.gov/oce/foodwaste/Challenge/index.htm (last visited Feb. 13, 2018).

⁵⁷ See Food Recovery Challenge (FRC), ENVTL. PROT. AGENCY, https://www.epa.gov/sustaina-ble-management-food/food-recovery-challenge-frc (last visited Feb. 13, 2018).

⁵⁸ See Nicholas Elger, Oak Ridge Inst. for Sci. & Educ. Research Participation Program, Improving Project Outcomes & Growing the Anaerobic Digestion Industry 1 (2016).

⁵⁹ E.g., Lisa W. Foderaro, Without Cafeteria Trays, Colleges Find Savings, N.Y. Times (Apr. 28, 2009), http://www.nytimes.com/2009/04/29/nyregion/29tray.html.

Some writers have described the organic movement as being transcended by the local food movement or urban agricultural movement. Instead of food waste "transcending" other movements, I see food waste regulations as reflecting a deeper understanding of system thinking—seeing the elements or components of a system and how these components or elements interact with each other. See Sarah J. Morath, The Farm Bill: A Wicked Problem Seeking a Systematic Solution, 25 DUKE ENVTL. L. & POL'Y F. 389, 393 (2015) (advocating systemic thinking for analyzing food waste); Stephanie Tai, Food Systems Law from Farm to

be recycled into our food system, it is also a leverage point that can be used to create a more sustainable food system.⁶¹

Thinking in complex-system terms is a necessary step to creating a sustainable food system.⁶² As the sustainable food movement has evolved, knowledge of the harms of food waste has deepened. More and more people are concerned with not only where their food comes from, but where their uneaten or unpurchased food goes.⁶³ At the same time, legal scholarship has increasingly focused on the interaction of laws and norms on

Fork and Beyond, 45 SETON HALL L. REV. 109, 162 (2015) (arguing for a system-thinking approach to "understanding and reforming the legal structure governing food"). Interestingly, in-depth discussions of food waste are absent from legal scholarship. Many articles call for a more sustainable food system by critiquing industrial farming practices and advocating for more support of urban, local, and organic farming practices, but do not address food waste. See, e.g., Linda Breggin & D. Bruce Myers, Jr., Subsidies with Responsibilities: Placing Stewardship and Disclosure Conditions on Government Payments to Large-Scale Commodity Crop Operations, 37 HARV. ENVTL. L. REV. 487, 487 (2013) (recommending reforms to the Farm Bill to better address pollution resulting from large-scale commodity crop operations); William S. Eubanks II, The 2013 Farm Bill: An Opportunity for Change, 28 NAT. RESOURCES & ENV'T 30, 30 (2013) (describing five areas of farm-bill reform worthy of congressional consideration); Mary Jane Angelo, Corn, Carbon, and Conservation: Rethinking U.S. Agricultural Policy in A Changing Global Environment, 17 GEO. MASON L. REV. 593, 611-12 (2010) (describing the direct (pesticide use) and indirect (cheap high fructose corn syrup) health effects of agricultural policies); Anthony Kammer, Cornography: Perverse Incentives and the United States Corn Subsidy, 8 J. FOOD L. & POL'Y 1, 30 (2012) (describing the effect of commodity subsidies on Diet, Nutrition, and Healthcare Costs). I, too, am guilty of focusing on the front end of the food system. See generally Sarah J. Morath, The 2014 Farm Bill: A Wicked Problem Seeking a Systematic Solution, DUKE ENVTL. L. & POL'Y F. (2015); Sarah J. Morath The Farmer in Chief: Obama's Local Food Legacy, 93 Or. L. Rev. 91 (2014). A few articles mention food waste as part of a larger sustainable food movement. See Anastasia Telesetsky, Waste Not, Want Not: The Right to Food, Food Waste and the Sustainable Development Goals, 42 DENVER J. INT'L L. & POL'Y 479, 481 (2014) (using the human right to food to address food waste at the global level); Birdsong, supra note 47, at 422 (briefly describing ways food waste might be reduced). The omission of food waste is also apparent in explanations of food policy and commentaries on our food system. For example, Parke Wilde's informative book on U.S. food policy does not include a discussion on food waste. See generally Parke Wilde, Food Policy in the United States, An In-TRODUCTION (2013). Similarly, in The Farmer in Chief, Michael Pollan explains at length how "when we eat from the industrialized food system, we are eating oil and spewing greenhouse gases" but only spends a few sentences discussing food waste. Michael Pollan, Farmer in Chief, N.Y. TIMES (Oct. 9, 2008), https://www.nytimes.com/2008/10/12/magazine/12policy-t.html.

- According to system theorists, "[l]everage points are points of power" within a system where a small shift in one thing can produce big changes in everything." Donella Meadows, *Leverage Points: Places to Intervene in a System*, Donella Meadows Project (1999), http://www.donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system.
- 62 System thinking is similar to thinking in "cradle to cradle" terms. See Stephen Ashkin, Cradle to Grave vs. Cradle to Cradle, CleanLink (July 1, 2008), https://www.cleanlink.com/cp/article/Cradle-To-Grave-Vs-Cradle-To-Cradle—9277.
- 63 See, e.g., Roni A. Neff et al., Wasted Food: U.S. Consumers' Reported Awareness, Attitudes, and Behaviors, PLOS ONE (June 10, 2015), https://doi.org/10.1371/journal.pone.0127881.

influencing behavior, particularly in the context of harmful environmental behavior.⁶⁴ In addition, legal scholarship has become increasingly interested in the role of private and non-governmental actors in sustainability efforts.⁶⁵ Applying this line of scholarship to food waste is the first step in evaluating efforts to combat food waste.⁶⁶ Decision-makers in government, business, and non-profits, as well as citizens, should be familiar with the various regulatory tools at their disposal (laws, norms, markets, and architecture), as well as understand what entities can employ these tools.⁶⁷ This understanding is the first step in the food-waste fight.

A. FOOD WASTE AND ITS HARMS

Food waste⁶⁸ is complicated because it is common. It occurs in every country,⁶⁹ throughout the food supply chain, and from production and harvesting to storing and packaging to distribution and consumption and disposal.⁷⁰ It includes fruit that is bruised

⁶⁴ See, e.g., Ann P. Kinzig et al., Social Norms and Global Environmental Challenges: The Complex Interaction of Behaviors, Values, and Policy, 63 BIOSCIENCE 164, 165 (2013).

⁶⁵ See infra Part IV.

⁶⁶ This article focuses on food waste in the U.S. not developing countries.

⁶⁷ Lani Guinier & Gerald Torres, Changing the Wind: Notes Toward A Demosprudence of Law and Social Movements, 123 Yale L.J. 2740, 2742 (2014) ("Even cause lawyers, whose goals are consistent with the highest calling of their profession and our democracy, still tend to think primarily if not exclusively in terms of their own professional tools for lawmaking. They focus on creating social or economic change by expanding and/or reinterpreting the legal canon."); see also Light, supra note 32, at 10 ("To the extent that the dominant understanding of instrument choice assumes a single governmental chooser, a shift away from that assumption is warranted.")

Some organizations distinguish between food waste, food wastage, and food loss based on when the withdrawal of the food from the food chain occurs (at or before final consumption) and whether the withdrawal is considered evitable or inevitable. See Morvarid Bagherzadeh et al., Food Waste Along the Food Chain, OECD FOOD, AGRIC. & FISHERIES PAPERS No. 71, at 7 (2014). The USDA for example, defines "food loss" as "the amount of edible food, postharvest, that is available for human consumption but is not consumed for any reason [including] cooking loss and natural shrinkage (for example, moisture loss); loss from mold, pests, or inadequate climate control; and food waste. . . . In some of the statistics and activities surrounding recycling, the term "waste" is stretched to include non-edible (by humans) parts of food such as banana peels, bones, and egg shells." U.S. Food Waste Challenge: Frequently Asked Questions, U.S. DEP'T AGRIC., https://www.usda.gov/oce/foodwaste/ fags.htm (last visited Apr. 14, 2018). The Food and Agriculture Organization (FAO) of the United Nations, also makes a distinction between food loss and food waste, and when referring to both, uses the phrase "food wastage." The FAO notes that food loss is primarily a result of inefficiencies along the food chain or poor infrastructure, whereas food waste is the result of oversupply or consumer habits. See FOOD & AGRIC. ORG., FOOD WASTAGE FOOT-PRINT: IMPACTS ON NATURAL RESOURCES 8-9 (2013).

The World Resources Institute, the United Nations, the United States Department of Agriculture, and the Environmental Protection Agency are all studying this issue. See Brian Lipinski et al., Reducing Food Waste and Loss, Working Paper, Installment 2 of Creating A Sustainable Food Future, 38 (World Res. Inst., Working Paper, 2013); available at http://www.worldresourcesreport.org.

⁷⁰ Id. at 5.

during harvest and crops that are left in fields because of inefficient harvesting or a drop in crop prices.⁷¹ It arises when pests or disease destroy a crop or livestock is deemed not acceptable for slaughter.⁷² It occurs when milk spills during the pasteurization process or spoils because of poor refrigeration.⁷³ It takes place when food expires on the grocery shelf,⁷⁴ when food goes bad in the refrigerator, or leftovers are thrown away.⁷⁵ In developing countries, food waste is more common in the production and storing stage, while in developed countries, food waste occurs most often at the consumption stage.⁷⁶

Food waste is also complicated because it has environmental, social, and economic components. Wasted food has an impact on carbon footprints, water footprints, land, and biodiversity.⁷⁷ Globally, food loss and waste represents 3,300 to 5,600 million metric tons of greenhouse gas emissions and 24% of all water used for agriculture.⁷⁸ Studies show that there is enough food to feed the global population, yet hunger remains a problem.⁷⁹ The financial cost of food loss and waste is significant for both farmers and consumers. One study showed a family of four in the United States loses \$1,600 per year as a result of food waste at the consumption stage.⁸⁰

B. A WICKED PROBLEM NEEDING A SYSTEMATIC SOLUTION

Like other problems that flow from consumerism, food waste is a "wicked problem." A wicked problem is a "form of social or cultural problem that is difficult to solve because of incomplete, contradictory, and changing requirements." Framing food waste as a wicked problem is an important aspect of addressing the problem. Wicked problems involve "horizontal and vertical cross-cutting dimensions, multiple stakeholders, tradeoffs between values, and quality of family life."

Given these facts, managing food waste will require a comprehensive and systematic approach, evaluating waste all along the food supply chain. It will require thinking about food waste as more than just a waste problem, but also as production, distribution, storage, consumption, and disposal problems. It will require efforts from the government, private entities, non-profits, and individuals. Technological advances in food storage will not reduce food waste if no one purchases the unspoiled produce that makes it to market. Similarly, changing sell-by date labels will not reduce food waste if the food still goes

⁷¹ Id.

⁷² Id.

⁷³ Id.

⁷⁴ Id.

⁷⁵ Id.

⁷⁶ Id. at 7. Food waste studies use different measurement units, further adding to its complexity. Food waste can be measured in terms of a decrease in mass or volume or a decrease in nutritional or value. See Bagherzadeh et al., supra note 68, at 6.

⁷⁷ FOOD & AGRIC. ORG., supra note 68, at 11.

⁷⁸ Lipinski, supra note 69, at 9.

⁷⁹ Id.

⁸⁰ Id. at 8.

Wicked Problems, Austin Ctr. for Design, http://www.ac4d.com/our-work-philosophy-and-approach-to-education/understanding-wicked-problems (last visited Feb. 17, 2017).

⁸² Id

⁸³ Ozzie Mascarenhas, Innovation as Defining and Resolving Wicked Problems 6 (2009).

uneaten in a consumer's refrigerator. Food waste bans will be ineffective if composting facilities are unavailable. Furthermore, wicked problems cannot be "solved" like a puzzle.⁸⁴ There is no single solution or correct answer. Instead, solving a wicked problem like food waste is about "managing" the problem and designing more effective solutions.

III. REGULATING TO PREVENT ENVIRONMENTAL HARM

There are many components to designing effective solutions to food waste. Consideration should be given to who is in a position to regulate (businesses, non-profits, state, federal, and local governments), who is in a position to be regulated (farmers, distributors, retailors, consumers), and what tools are available for regulation. Most food waste, 43%, is generated by individuals at the consumption stage. Endowmer-facing businesses like restaurants and grocers account for 40% of all food waste, while farms and manufactures count for 17%. Food waste stems from regulations, policies, and choices made all along the food supply chain from farmers, distributers, managers of restaurants, grocery stores, institutions, to consumers. This section summarizes the tools available to regulate environmental harm, with a focus on individual behavior.

The taxonomy developed by Lawrence Lessig serves as a starting point. In his article, *The New Chicago School*, Lessig describes four constraints that operate to regulate human behavior.⁸⁷ These constraints, or modalities, of regulation are: (1) laws or mandates; (2) social norms; (3) markets; and (4) architecture.⁸⁸ Lessig explains that the law can regulate individual behavior directly through individual regulation, or the law can regulate social norms, markets, and architecture, thereby regulating the individual behavior indirectly.⁸⁹ As a result, the three other modalities do not exist separate from the law⁹⁰ and they do not operate independently. A change in one of the modalities could end up affecting one or all of the other modalities.⁹¹ Therefore, the question for the regulator is never "law or something else."⁹² While Lessig identifies the government as the regulator,

⁸⁴ Id. at 5.

^{85 27} Solutions to Food Waste, ReFED, http://www.refed.com/?sort=economic-value-per-ton (last visited Feb. 17, 2017).

⁸⁶ Id.

Eawrence Lessig, The New Chicago School, 27 J. Legal Stud. 661, 662 (1998). Other scholars describe these modalities or ways of regulating behavior using different terms. See Ryan Calo, Code, Nudge, Notice, 99 Iowa L. Rev. 773, 773. Other examples include Kip Viscusi's four institutional mechanisms and Jim Salzman's five regulatory categories. See Michael P. Vandenbergh, Reconceptualizing the Future of Environmental Law: The Role of Private Climate Governance, 32 Page Envill. L. Rev. 382, 392 (2015); Jay P. Kesan & Rajiv C. Shah, Shaping Code, 18 Harv. J.L. & Tech. 319, 319 (2005).

⁸⁸ Lessig, *supra* note 87, at 662–663.

⁸⁹ Id. at 666.

⁹⁰ Id. at 672.

Ann E. Carlson, *Recycling Norms*, 89 CAL. L. REV. 1231, 1254 (2001) ("A change in law or architecture, for example, could end up affecting social norms or vice versa.").

⁹² Lessig, supra note 87, at 672.

businesses and NGOs have parallel instruments available for use in regulating behavior.⁹³

Lessig uses the example of smoking to illustrate how these constraints operate together. To reduce the number of people who smoke cigarettes, the government could enact a law banning smoking, thereby directly regulating the individual.⁹⁴ In addition, the government could enact a law taxing cigarettes and reducing smoking by making it more expensive.⁹⁵ The government could also, through a law, fund a public ad campaign alerting citizens of the harms of smoking in an effort to change social norms.⁹⁶ Finally, the government could enact a law requiring cigarettes be made with less or no nicotine making them less addictive through design.⁹⁷ Regardless of the modality employed, the goal is the same: to stop individuals from smoking.

Lessig's modalities have been integrated into environmental scholarship, 98 with scholars noting the different "modalities of regulation" available to regulate human behavior to avoid environmental harm. 99 Katerina Kuh, for example, has focused on mandates as a method of controlling individual environmental harms. 100 She discovered that "mandates might prove to be a more useful tool for changing individual behaviors than has previously been recognized." 101 Although individuals may object to mandates because their enforcement invades privacy rights or other civil liberties, what Kuh calls "the intrusion objection," she concludes that mandates might be "more useful for changing individual behaviors than has been previously recognized." 102 For support, Kuh cites anti-littering ordinances and recycling requirements. While these mandates are "not always welcomed, their ubiquity and longevity suggest that direct regulation of some environmentally significant individual behaviors enjoys general acceptance in many areas." 103

²³ Light, *supra* note 32, at 10 ("[P]rivate actors are adopting similar techniques and methods as those that public regulators use to address environmental problems.").

⁹⁴ Id. at 667.

⁹⁵ Id.

⁹⁶ Id.

⁹⁷ Id. at 667-68.

Four "types of constraint[s]" operate on individual behaviors and thus offer potential paths for reorienting environmental law and policy to better capture or control harms from individual behaviors. See Katrina Fischer Kuh, When Government Intrudes: Regulating Individual Behaviors that Harm the Environment, 61 DUKE L.J. 1111, 1115 (2012) [hereinafter Kuh, When Government Intrudes].

⁹⁹ Calo, supra note 87, at 773; see Vandenbergh, supra note 87, at 392.

Katrina Fischer Kuh has several articles in which she discusses Lessig's "taxonomy." Kuh, supra note 98; Katrina Fischer Kuh, Capturing Individual Harms, 35 HARV. ENVTL. L. REV. 155, 161 (2011) (evaluating the role of local information, local governments, and local implementation as a method for reducing GHG emissions) [hereinafter Kuh, Capturing Individual Harms]; Katrina Fischer Kuh, Personal Environmental Information: The Promise and Perils of the Emerging Capacity to Identify Individual Environmental Harms, 65 VAND. L. REV. 1565, 1576 (2012) [hereinafter Kuh, Personal Environmental Information].

¹⁰¹ Kuh, When Government Intrudes, supra note 98, at 1120.

¹⁰² Id.

¹⁰³ Id. at 1134–1135.

Sarah Schindler has also evaluated all four modes of regulating human behavior, but in the context of lawns and their harms.¹⁰⁴ These harms include excess use of water, water pollution from fertilizers, air pollution from lawn mowers and leaf blowers, and diminishing biodiversity.¹⁰⁵ Although lawns could be regulated through social norms, market mechanisms, and architecture, Professor Schindler focuses on mandates and argues that municipal lawn bans offer the most "potentially powerful regulatory option."¹⁰⁶

While bans typically focus on individual behavior, other tools have been used to address environmental harms from industrial sources. Common instruments include prescriptive regulation (command and control) and market mechanisms (financial incentives and disincentives). National Ambient Air Quality Standards in the Clean Air Act and effluent limitations in the Clean Water act are examples of prescriptive regulation. Carbon taxes and cap-and-trade permits are examples of market mechanisms. Scholars have increasingly called for a mix of regulatory mechanisms to address environmental harms. James Salzman, for example, describes five regulatory approaches: prescriptive regulation, property rights, financial penalties, financial payments, and persuasion. Jason Czarneski identifies six: standard setting, information, bans, market-based, infrastructure, public awareness, and pollution prevention. Still other scholars offer terms like "reflective law" and "adaptive law" to describe modern approaches

Sarah B. Schindler, Banning Lawns, 82 GEO. WASH. L. REV. 394, 395 (2014) [hereinafter Schindler, Banning Lawns]. Sarah Schindler also has another article exploring Lessig's fourth modality: architecture. See Sarah B. Schindler, Architectural Exclusion: Discrimination and Segregation through Physical Design of the Built Environment, 124 YALE L.J. 1934, 1940 (2015) (examining the built environment's regulatory role) [hereinafter Schindler, Architectural Exclusion].

¹⁰⁵ Schindler, Banning Lawns, supra note 104, at 398.

¹⁰⁶ Id.

¹⁰⁷ Jody Freeman & Daniel A. Farber, Modular Environmental Regulation, 54 Duke L.J. 795, 815–21 (2005); Timothy F. Malloy, Regulating by Incentives: Myths, Models, and Micromarkets, 80 Tex. L. Rev. 531, 531 (2002).

¹⁰⁸ Light, supra note 32, at 25.

¹⁰⁹ Id.

¹¹⁰ See James Salzman, Teaching Policy Instrument Choice in Environmental Law: The Five P's, 23 Duke Envil. L. & Poly F. 363, 363 (2013); see also Light, supra note 32, at 4 (noting that "global environmental problems require multi-faceted legal approaches that combine local, regional, national, and international public law").

¹¹¹ Salzman, *supra* note 110, at 363, 374 n.29 (arguing that all forms of public environmental regulation can be categorized as falling into one of five categories: prescription, property, penalties, payments, and persuasion).

¹¹² Jason J. Czarnezki, New York City Rules! Regulatory Models for Environmental and Public Health, 66 HASTINGS L.J. 1621, 1621 (2015).

¹¹³ Richard B. Stewart, A New Generation of Environmental Regulation?, 29 CAP. U. L. REV. 21, 21 (2001). Reflective approaches include information regulation, environmental audit and management systems, and alternative compliance programs.

¹¹⁴ Craig Anthony Arnold & Lance H. Gunderson, Adaptive Law & Resilience, 43 Envtl. L. Rep. News & Analysis 10426, 10426 (2013).

to addressing environmental issues.¹¹⁵

In addition to identifying different instruments available for regulation, scholarship addressing environmental law has expanded from one focused on industrial sources of pollution to include tackling environmental harms caused by individual behavior. 116 Hope Babcock, for example, discusses different ways to change individual behavior in an effort to make individuals more environmentally responsible. 117 Like Lessig's modalities, Babcock's suggestions include shaming sanctions, 118 information and public education, and market-based incentives in her list of mechanisms available for use. 119 Of these mechanisms, Babcock argues that public education is "central" to norm shifts. 120 Helping individuals to recognize that they are polluters and to understand when and how they pollute is an important step in changing environmentally harmful behaviors. 121 Education should be used in conjunction with sanctions, economic incentives, and information campaigns to address individual behavior that causes environmental harm. 122

Scholars of environmental law have also recognized the need for collaboration and interaction between the public and private sectors as an emerging and essential aspect of

¹¹⁵ Craig Arnold offers four generations of environmental law. See Craig Anthony Arnold, Fourth Generation Environmental Law: Integrationist and Multimodal, 35 Wm. & Mary Envtl. L. & Pol'y Rev. 771, 771 (2011).

Michael Vandenbergh defines individual behaviors as "all of the activities that are under the substantial control of a private individual." Michael P. Vandenbergh, Taking Individual Behavior Seriously, 30 Admin. & Reg. L. News 2, 2 (2005). Katrina Fischer Kuh describes "environmentally significant individual behaviors as "encompass[ing] behaviors of individual that, taken alone, have a negligible impact on the environment but, in the aggregate, can significantly harm the environment." Kuh, Personal Environmental Information, supra note 100, at 1629; see also Hope M. Babcock, Assuming Personal Responsibility for Improving the Environment: Moving Toward a New Environmental Norm, 33 HARV. ENVTL. L. REV. 117, 118 (2009). This body of scholarship has developed in part because federal environmental legislation in the 1960s and 1970s focused on eliminating and cleaning-up industrial pollution. See Albert C. Lin, Evangelizing Climate Change, 17 N.Y.U. Envtl. L.J. 1135, 1146 (2009) ("Environmental regulation has historically focused on industrial sources."). Many of the remaining environmental harms of today are a result of individual behavior. See Babcock, supra at 117; Vandenbergh, supra at 2 ("[A]fter thirty years of regulation focused on large firms, individual behavior has emerged as a leading source of many toxic and conventional pollutants."); see also Michael P. Vandenbergh, Order Without Social Norms: How Personal Norm Activation Can Protect the Environment, 99 Nw. U. L. Rev. 1101, 1104 (2005) (noting that individuals have remained largely beyond the reach of environmental regulation). Another reason for the growing interest in individual behavior is the result of Professor Michael Ray Harris has described our nation's "environmental story" as one of "Congressional inaction and regulatory backsliding." See Michael Ray Harris, Environmental Deliberative Democracy and the Search for Administrative Legitimacy: A Legal Positivism Approach, 44 U. MICH. J.L. REFORM 343, 363 (2011).

¹¹⁷ See generally Babcock, supra note 116.

But Babcock notes that while sanctions can be an effective way to shift norms "shaming alone may be ineffective in the case of environmentally deviant behavior." *Id.* at 164.

¹¹⁹ Id. at 165-73.

¹²⁰ Id. at 174.

¹²¹ Kuh, Personal Environmental Information, supra note 100, at 1565.

¹²² Babcock, supra note 116, at 174.

environmental law.¹²³ Michael Vandenbergh, scholar of private environmental governance, has spent considerable time discussing social norms and individual behavior in the context of environmentally harmful behavior.¹²⁴ He notes that "studies suggest that public information campaigns and other norm campaigns, either alone or in combination with formal legal and economic measures, can make meaningful changes in recycling, residential electricity use, waste disposal and other environmentally significant behaviors."¹²⁵

Finally, Sarah E. Light has explained "how private environmental governance actually employs the same instruments as public governance." For example, just as the government can enact rules or mandates to prescribe certain behavior, private non-governmental organizations can promulgate prescriptive rules for performance standards that are self-imposed and enforced or set and monitored by industry groups or third-party NGOs. As described later, the standardization of date labels by industry groups, as opposed to the federal government, is an excellent example of private environmental governance. 128

While one method of regulating behavior may prove more effective than another at addressing certain environmental harms, scholars agree that addressing the environmental problems of today will require a "mix of policy tools" and collaboration between public and private actors like businesses and NGOs.¹²⁹ Recognizing that "law is an incomplete tool for regulating environmental behavior,"¹³⁰ public and private entities have begun working together using a variety regulatory tools and instruments to address environmental issues.¹³¹ This is what Craig Arnold calls the fourth generation of environmental law—one that is integrated and multimodal.¹³² Arnold describes multimodality as having multiple approaches that are used together by a number of stakeholders as follows:

Multimodality may involve the use of multiple categories of policy instruments, such as command-and-control regulation, tort liability, public education, and market incentives. Multimodality can also describe the use of more than one specific tool or mechanism for environmental protection Finally, mul-

¹²³ Light, supra note 32, at 8.

Michael P. Vandenbergh & Anne C. Steinemann, The Carbon-Neutral Individual, 82 N.Y.U. L. Rev. 1673, 1673 (2007); Michael P. Vandenbergh, The Individual as Polluter, 35 Envtl. L. Rep. 10723, 10723 (2005); Michael P. Vandenbergh, From Smokestack to SUV: The Individual as Regulated Entity in the New Era of Environmental Law, 57 VAND. L. Rev. 515, 515 (2004).

¹²⁵ Vandenbergh, supra note 116, at 3.

¹²⁶ Light, supra note 32, at 9.

¹²⁷ Id. at 25–26.

¹²⁸ See infra Part V.A.

¹²⁹ Kuh, Capturing Individual Harms, supra note 100, at 160.

¹³⁰ Holly Doremus, Shaping the Future: The Dialectic of Law and Environmental Values, 37 U.C. DAVIS L. REV. 233, 235 (2003).

¹³¹ E.g., World Bank, Green Infrastructure Finance: A Public-Private Partnership Approach to Climate Finance 2 (2013).

¹³² Craig Anthony Arnold, Fourth-Generation Environmental Law: Integrationist and Multimodal, 35 Wm. & Mary Envtl. L. & Pol'y Rev. 771, 774 (2011).

timodality might refer to the use of multiple institutions, organizations, groups, or authoritative entities to engage in environmental protection.¹³³

Current efforts to combat food waste are an excellent example of the multimodal approach. As the next section explains, a variety of different regulatory and policy tools are being used by a variety of institutions and organizations. Understanding the formal and informal tools available to regulate food waste and the entities capable of regulating waste is critical to devising adequate solutions. The next section describes what various tools are being implemented and who is implementing these tools to address food waste today.

IV. Modalities of Regulation and Food Waste

Whether an intentional and coordinated effort or not, all four modalities are currently being employed in the fight against food waste. This approach is advantageous since relying on a single tool to change environmental behavior is not always effective. ¹³⁵ In addition, a multimodal approach is helpful since laws are sometimes ineffective at regulating behavior when the behavior is common among the average citizen. ¹³⁶ Readers can undoubtedly think of many examples of current efforts to combat food waste. For ease of discussion, this article focuses on two or three examples from each modality: composting laws and date label laws (bans or mandates); education campaigns and target setting (social norms); pay-as-you-throw programs and tax breaks for food donations (market mechanisms); and redesigning our built environment with anaerobic digesters or LeanPath devices and redesigning our digital environment with apps (architecture). These examples illuminate Lessig's modalities and how they interact with one another and illustrate the multimodal approach to modern environmental law.

A. Laws or Mandate

Laws or mandates regulate behavior directly through sanctions that are imposed if the law is not obeyed.¹³⁷ The punishment can vary from fines to imprisonment and is imposed if a certain standard of conduct is not met.¹³⁸ Enforcement is typically by police

¹³³ Id. at 794.

¹³⁴ Michael P. Vandenbergh, Beyond Elegance: A Testable Typology of Social Norms in Corporate Environmental Compliance, 22 STAN. ENVTL. L.J. 55, 56 (2003).

[&]quot;A single persuasive tool to change individual environmental behavior will not work, but that a combination of techniques, like public education, sanctions, and market-based incentives, specifically tailored to the desired activity and the targeted audience may achieve the goal." Hope M. Babcock, Responsible Environmental Behavior, Energy Conservation, and Compact Fluorescent Bulbs: You Can Lead A Horse to Water, but Can You Make It Drink?, 37 HOFSTRA L. REV. 943, 974 (2009).

Edward K. Cheng, Structural Laws and the Puzzle of Regulating Behavior, 100 Nw. U. L. Rev. 655, 656 (2006).

¹³⁷ Lessig, *supra* note 87, at 662.

¹³⁸ E.g., Edward Delman, Should It Be Illegal for Supermarkets to Waste Food?, Atlantic (May 29, 2015), https://www.theatlantic.com/international/archive/2015/05/law-france-supermarkets-food-waste/394481.

and prosecutors.¹³⁹ Some have argued that laws or mandates are the easiest and most obvious way to regulate behavior.¹⁴⁰ This is particularly true when discussing ways to regulate behavior at the local level.¹⁴¹ But laws alone are insufficient in regulating behavior because the effectiveness of a given law depends on deterrence and "deterrence is tricky to achieve, particularly when there are a large number of violators."¹⁴² Deterrence can occur if the sanctions are tough enough and the law is regularly enforced, but this is typically not the case for minor offenses.¹⁴³

In the context of food waste, laws exists that both aid the food-waste fight (food-waste bans, date-label laws, the Good Samaritan Food Donation Law) and frustrate it (food sharing prohibitions).¹⁴⁴ This section explores laws that focus on diverting and reducing the amount of food waste that enters landfills.

Laws in the form of mandatory composting (or food-waste bans) have become an increasingly popular way to regulate food waste.¹⁴⁵ The benefits of composting are many. Compost improves soil health by increasing organic material and nutrients, reducing reliance on pesticides and fertilizers, improving plant health, and helping reduce nutrient runoff and soil erosion.¹⁴⁶ Composting also reduces the volume of food scraps ending up in landfills.¹⁴⁷ In addition, composting is compatible with anaerobic digestion, a microbiological process that breaks down organic matter to produce a biogas, an energy source.¹⁴⁸ *BioCycle* notes in its "State of Composting in the U.S: What, Why, Where & How" report that composting is a way to "create jobs, protect local watersheds, reduce climate change, improve soil vitality, and build resilient local economies."¹⁴⁹

The State of Composting in the U.S., a 2014 publication, reports that there are over 3,285 composting sites in 44 states.¹⁵⁰ Of these composting sites, 347 sites focus on food

But cf. Jasper Copping, Don't Throw Away Leftovers, Warn 'Food Police', Telegraph (Jan. 10, 2009), http://www.telegraph.co.uk/news/earth/environment/4214024/Dont-throw-away-leftovers-warn-food-police.html.

¹⁴⁰ Cheng, supra note 136, at 657.

¹⁴¹ See Kuh, Capturing Individual Harms, supra note 100, at 198 (explaining that "mandates may prove more feasible at the local level").

¹⁴² Cheng, *supra* note 136, at 659.

¹⁴³ Id.

Mandates can also frustrate food waste efforts. Many municipalities have made the practice of sharing food more difficult by requiring a permit or imposing stringent food safety requirements. See Marc-Tizoc González, Hunger, Poverty, and the Criminalization of Food Sharing in the New Gilded Age, 23 Am. U.J. GENDER Soc. PoL'Y & L. 231, 232 (2015).

¹⁴⁵ Composting has been called "the next new thing in terms of municipal waste handling in the 21st century." Dave Levitan, *Recycling's 'Final Frontier': The Composting of Food Waste*, Yale: Environment360 (Aug. 8, 2013), http://e360.yale.edu/feature/recyclings_final_fron tier_the_composting_of_food_waste/2678.

¹⁴⁶ Brenda Platt et al., Institute for Local Self-Reliance, The State of Composting in the US: What, Why, Where & How 1 (2014).

¹⁴⁷ Id.

¹⁴⁸ *Id.* at 18. As explained in Part V.A, many municipalities are pursuing joint compositing and anaerobic digestion projects.

¹⁴⁹ Brenda Platt et al., supra note 146, at 18.

¹⁵⁰ *Id.* at 52. Six states did not respond. *Id.*

scraps.¹⁵¹ The amount of waste composted and the number of facilities for each state varies significantly. For example, California diverts the largest amount of organic waste (5,900,000 tons) and has 162 composting facilities, 26 of which are devoted to food waste.¹⁵² New York State diverts just over 1 million tons and has 490 composting facilities, 45 of which are devoted to food waste.¹⁵³

Because food waste is a "non-hazardous solid waste," it can be regulated through laws enacted by state and local governments.¹⁵⁴ These laws target commercial, institutional, and residential sources of food waste.¹⁵⁵ Laws have been enacted at the state and municipal or local level. For example, Connecticut's¹⁵⁶ and Massachusetts's¹⁵⁷ laws cover commercial food waste streams and Rhode Island's law covers food from educational facilities¹⁵⁸ while Vermont's laws cover food waste coming from both commercial and residential sources.¹⁵⁹ Many cities have enacted composting requirements including: San Francisco;¹⁶⁰ Seattle (food waste prohibited from commercial and residential garbage);¹⁶¹ New York City;¹⁶² and Iowa City.¹⁶³ This flurry of composting activity has been described as "a national trend" and "revolutionary."¹⁶⁴

While composting has many benefits and has been practiced in some areas for some time, it is not considered the highest and best use of food waste.¹⁶⁵ Source reduction or reducing the amount of waste created is the first priority. In other words, composting is preferred over disposing of food waste in a landfill, but a better result would be to reduce

- 155 E.g., Zero Waste Event Rebate, CITY OF AUSTIN, http://www.austintexas.gov/eventrebate (last visited Feb. 26, 2018).
- 156 CONN. GEN. STAT. § 22a-226e (2017) (recycling of source-separated organic materials). This is a ban for facilities generating a certain tonnage of food waste per week.
- 157 310 Mass. Code Regs. § 19.017(3) (2018) (commercial food ban only).
- 158 23 R.I. GEN. LAWS § 23-18.9-17 (2017) (food ban for educational facilities).
- 159 See Vt. Stat. Ann. tit. 10 § 6605k(c); Platt et al., supra note 146, at 56.
- 160 How Cities Compost Mountains of Food Waste, NAT'L GEOGRAPHIC (June 18, 2013), http://news.nationalgeographic.com/news/2013/06/130618-food-waste-composting-nyc-san-francisco.
- Prohibition of Recyclables in Garbage, Seattle Public Utilities, Director's Rule SW-402.1, www.seattle.gov/util/cs/groups/public/@spuweb/@policy/documents/webcontent/1_064230.pdf; Kim Severson, Starve a Landfill, N.Y. Times, Mar. 3, 2015, at D1.
- Mayor Bloomberg Announces More Than 100 Restaurants to Participate in the "Food Waste Challenge," New City Program to Reduce Amount of Waste Sent to Landfills, CITY OF N.Y. (Apr. 25, 2013), http://www1.nyc.gov/office-of-the-mayor/news/148-13/mayor-bloomberg-more-100-restaurants-participate-the-food-waste-challenge.
- Paul Deaton, *Iowa City Food Waste Reduction Project Recognized by EPA*, Iowa City Press-Citizen (Dec. 17, 2014), http://www.press-citizen.com/story/news/local/2014/12/17/iowa-city-food-waste-reduction-project-recognized-epa/20550609.
- 164 Levitan, supra note 145.
- See, e.g., Sustainable Management of Food, Envtl. Prot. Agency, https://www.epa.gov/sustainable-management-food (last visited Feb. 21, 2018).

¹⁵¹ Id. at 55.

¹⁵² Id. at 53-54.

¹⁵³ Id. at 53. This amount is total organics diverted to a composting facility. Id.

¹⁵⁴ Congress specifically envisioned that solid waste would be handled on a local basis as stated in the Congressional findings in section 1002 of the Resource Conservation and Recovery Act (RCRA). See 42 U.S.C. § 6901(a)(4) (2012).

the amount of food waste that requires composting. Indeed, in the waste hierarchy created by the EPA, composting is only one step away from the landfill:¹⁶⁶



Like recycling, ¹⁶⁷ composting has several shortcomings. First, composting treats the food waste problem as a waste problem rather than a consumption problem. Those who compost might be creating just as much waste; the only difference is that the waste is diverted from the landfill to the compost pile. ¹⁶⁸ Furthermore, composting still results in a lot of waste—the wasted resources that went into growing, producing, processing, and transporting the food that ultimately ended up in the compost bin. ¹⁶⁹ In addition, effective composting takes time and resources—time to chop up food scraps into small pieces, time to collect and dispose of the food scraps, and time to turn the compost material so that it is properly aerated. Composting also requires land and money. Compost piles take up space, and running a compost operation requires money for equipment like compost bins and money to pay those who are collecting and managing the compost pile. Finally, composting is not logistically feasible everywhere (consider apartments). Shipping residential food waste to a distant location for composting does not necessarily reduce the amount of greenhouse gasses emitted.

Nonetheless, composting has numerous benefits, such as maintaining healthy soil, and is a better option than landfilling; therefore, it should be encouraged when there are few logistical and financial barriers. Also, it is obviously beneficial to have composting

¹⁶⁶ Id.

Olivia Lowenberg, Are We Recycling Too Much of Our Trash?, CHRISTIAN SCI. MONITOR (Oct. 23, 2015), http://www.csmonitor.com/Environment/2015/1023/are-we-recycling-too-much-of-our-trash.

In some instances they might be creating more waste. One study found that diners who knew their meals were going to be composted did not try as hard to reduce their food waste when eating. See Misti Crane, Worries About Food Waste Appear to Vanish When Diners Know Scraps Go to Compost, Ohio St. U. (January 3, 2017), https://news.osu.edu/news/2017/01/03/food-waste-compost.

¹⁶⁹ Krista L. Thyberg & David J. Tonjes, *Drivers of Food Waste and Their Implications for Sustainable Policy Development*, 106 RESOURCES CONSERVATION & RECYCLING 110, 111 (2016).

abilities even if the total amount of food waste is reduced. Composting, however, is not the silver bullet to America's food waste problem and efforts should focus higher up in the hierarchy.

One such effort to address recovery higher up in the hierarchy was the Food Date Labeling Act of 2016 ("Act").¹⁷⁰ The goal of the Act, which was introduced in spring 2016 in the House of Representatives, was to end consumer confusion as to whether food is safe to eat after its "sell-by" date, thereby reducing the amount of food waste generated in the first place.¹⁷¹ The bill was an outgrowth of a study on date labels conducted by the Harvard Food Law and Policy Clinic and the Natural Resources Defense Council (NRDC), which concluded that "misinterpretation of date labels on food is a key factor leading to food waste."¹⁷² The bill's findings acknowledged that "date labeling practices on food packaging cause confusion with 'sell-by,' 'best-by,' 'use-by,' and 'best before' dates, leading up to 90 percent of individuals in the United States to occasionally throw out still-fresh food."¹⁷³ The findings also noted that "[c]onsumer education and standardized date labeling are the top 2 most cost-effective strategies for reducing food waste, by economic value per ton diverted."¹⁷⁴

The Act proposed two uniform phrases to be used on food labels: "best if used by" to refer to quality and "expires on" to refer to safety. 175 "Quality dates" would have been voluntary dates printed on food packaging "to communicate to consumers the date after which the quality of the product may begin to deteriorate, but may still be acceptable for consumption. 176 A "safety date" would have been "a date printed on food packaging of a ready-to-eat product, which signifies the end of the estimated period of shelf life under any stated storage conditions, after which the product may pose a health safety risk. 177 Unlike composting laws, which focus on the individual, the Act applied to "food labeler[s]" or "the producer, manufacturer, distributor, or retailer that places a date label on food packaging of a product. 178

While this bill did not pass, the USDA Food Safety and Inspection Service recently revised its guidance on date labels to recommend the use of the phrase "best if used by" by food labelers.¹⁷⁹ In addition, grocery manufacturers and retailers have recently joined

¹⁷⁰ H.R. 5298, 114th Cong. (2016).

¹⁷¹ Maura Judkis, The Simple Labeling Update that Could Prevent Millions of Tons of Food from Going in the Trash, Wash. Post (May 19, 2016), https://www.washingtonpost.com/news/food/wp/2016/05/19/the-simple-labeling-update-that-could-prevent-millions-of-tons-of-food-from-going-in-the-trash.

¹⁷² Nat. Res. Def. Council & Harvard Food Law & Policy Clinic, The Dating Game: How Confusing Food Date Labels Lead to Food Waste in America 2 (2013).

¹⁷³ H.R. 5298, 114th Cong. (2016); see also Nat. Res. Def. Council & Harvard Food Law & Policy Clinic, supra note 172, at 2.

¹⁷⁴ H.R. 5298, 114th Cong. (2016).

¹⁷⁵ Id.

¹⁷⁶ Id.

¹⁷⁷ Id.

¹⁷⁸ Id.

¹⁷⁹ Food Safety & Inspection Serv., USDA Revises Guidance on Date Labeling to Reduce Food Waste, U.S. Dep't Agric. (Dec. 14, 2016), https://www.fsis.usda.gov/wps/portal/fsis/news-room/news-releases-statements-and-transcripts/news-release-archives-by-year/archive/2016/nr-121416-01.

together to adopt standard wording on packaging about the quality and safety of products. The new voluntary initiative adopts two standard phrases, "best if used by" and "use by." This example demonstrates the ability of private entities to regulate behavior through private governance tools such as industry standards.

The date label example also illustrates the limitations of relying on one type of policy tool—education—alone as a way to alter individual behavior. Rather than simply providing information on the different kinds of date labels to individual consumers, the Act focused on changing the behavior of a much smaller group—food labelers. Instead of mandating that individuals engage in certain behavior like composting laws, the Food Date Labeling Act mandated behavior on the part of food labelers by standardizing food labels. By eliminating confusion and creating uniformity, the Act could have altered the behavior of individuals. Individuals may be less inclined to throw away food if they know it is still safe to consume. While there have been efforts to educate consumers about date labels, ¹⁸¹ an approach discussed in the next section, the legislative approach with date labels has the potential to be more effective because it regulates a smaller group with little cost to the regulated entity. Finally, the date label example illustrates how information about a particular problem can spur action at the federal, industry, and eventually consumer level.

B. Social Norms

Norms are "informal obligations or social rules that are not dependent on government either for their creation or their enforcement." Instead, social norms "[c]onstrain

¹⁸⁰ Grocery Industry Launches New Initiative to Reduce Consumer Confusion on Product Date Labels, Grocery Manufacturers Ass'n (Feb. 16, 2017), http://www.gmaonline.org/news-events/newsroom/grocery-industry-launches-new-initiative-to-reduce-consumer-confusion-on-pr.

Extension programs and online articles about date labels are just a few indications that word is spreading on this particular food waste issue. See Suzanne Driessen, Dates on Food Products: What Do They Mean?, U. Minn. Extension (2017), http://www.extension.umn.edu/food/food-safety/preserving/storage/food-product-dates; Kelsey Houston-Edwards, Why Food Date Labels Don't Mean What You Think, Pub. Broadcasting Serv.: NOVANext (Aug. 10, 2016), http://www.pbs.org/wgbh/nova/next/body/food-expiration-dates/; Jonathan Bloom, "Sell By" Date Labels Confuse Customers, Increase Food Waste, Nat'l Geographic (May 20, 2016), http://theplate.nationalgeographic.com/2016/05/20/sell-by-date-labels-confuse-customers-increase-food-waste.

Babcock, *supra* note 116, at 117. A variety of definitions for norms exist. For example, Richard McAdams defines social norms as "informal social regularities that individuals feel obligated to follow because of an internalized sense of duty, because of a fear of external non-legal sanctions, or both." Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 MICH. L. REV. 338, 340 (1997). Cass Sunstein describes norms as "social attitudes of approval and disapproval, specifying what ought to be done and what ought not to be done." Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 914 (1996). In yet a third definition, Richard Posner defines social norms as a "rule that is neither promulgated by an official source, such as a court or a legislature, nor enforced by the threat of legal sanctions, yet is regularly complied with." Richard A. Posner, *Social Norms and the Law:* An Economic Approach, 87 Am. Econ. Rev., Papers and Procs. of

behavior by imposing private or reputational sanctions for noncompliance." Research has shown that norms can be enforced by negative and positive mechanisms and have external and internal influences. Negative-external activities like gossip, shaming, stigma, and ostracism might cause a change in behavior while positive-internal effects such as increased pride, self-esteem, and an enhanced reputation could also play a role. For example, if recycling were a norm, "the obligation to recycle [would be] enforced by a nongovernmental sanction—as when individuals internalize the duty and feel guilt from failing to recycle or when individuals privately punish those who do not recycle." 185

Behavior theorists and legal scholars have discussed norm development and the interaction between laws and social norms at length. 186 In his article The Origin, Development, and Regulation of Norms, Richard McAdams argues that "those who study the law should study norms." 187 Norms are relevant to legal analysis because "(1) sometimes norms control individual behavior to the exclusion of law, (2) sometimes norms and law together influence behavior, and (3) sometimes norms and law influence each other." 188 Professor Hope Babcock argues that, to change a norm or create a new one, there needs to be "some form of public action and public sanction for its violation [T]he new or amended norm must be adopted and widely supported by the public, and some form of informal sanctions of sufficient consistency and severity must be available as a means of recognizing and enforcing it." 189 Yet the effectiveness of social norms at altering behavior may depend on "the nature of the social problem, the context in which it arises, and the availability of other regulatory tools."190 Ann Carlson has studied social norms in the context of recycling and concluded: "norm creation or management is by itself not likely to be terribly effective in resolving a large-number, small-payoff collective action problem if the desired behavioral change is relatively inconvenient or requires significant

THE HUNDRED AND NINTH ANN. MEETING OF THE AM. ECON. Ass'N, May 1997, at 365, 365–69.

¹⁸³ Carlson, *supra* note 91, at 1253 (2001).

¹⁸⁴ Michael P. Vandenbergh, Beyond Elegance: A Testable Typology of Social Norms in Corporate Environmental Compliance, 22 STAN. ENVTL. L.J. 55, 70 (2003).

¹⁸⁵ McAdams, *supra* note 182, at 350; *see also* Sunstein, *supra* note 182, at 911 (stating that those "who fail to recycle are seen as oddballs").

Carlson, *supra* note 91, at 1239 (summarizing the work of three theorists); *see* McAdams, *supra* note 182, at 344 (crediting Robert C. Ellickson with creating "a burgeoning new subfield of legal studies"). *See* McAdams, *supra* note 182, at 342, 343–54 (detailing the "new law-and-norm literature"). For a good discussion of norms in the environmental context, see generally Andrew Green, *You Can't Pay Them Enough: Subsidies, Environmental Law, and Social Norms*, 30 HARV. ENVTL. L. REV. 407 (2006). For a good summary of the literature on consumer behavior and behavioral change in the context of motivating sustainable consumption, *see generally* TIM JACKSON, MOTIVATING SUSTAINABLE CONSUMPTION (2005).

¹⁸⁷ McAdams, supra note 182, at 346.

¹⁸⁸ Id. at 347.

¹⁸⁹ Babcock, supra note 116, at 146-47.

¹⁹⁰ Carlson, supra note 91, at 1233.

effort."¹⁹¹ Michael Vandenberg, however, posits that the failure of a norm campaign might be the "failure to convey the types of information that will activate personal norms," rather than an inherent limitation of norm campaigns.¹⁹²

Like mandates, social norms can both aid and frustrate efforts to manage food waste. While individuals and institutions might feel "bad" about wasting food, wasting food in America is a common and accepted practice. Unlike during the Progressive era, those who waste food today are not "privately punished" or seen as "odd balls." How do we create a society where food waste is deemed unacceptable and not the norm? How can we create "nonlegal rules that certain individuals follow because they gain from doing so, either through increased inner satisfaction from doing the right thing or through approval they garner from others" 195?

The first step is to inform the public of environmental harms associated with food waste like methane emissions and wasted energy and materials. Social norm management through the use of mild and less intrusive tools, like distributing information through public education, rhetoric, or images, is a cheap and effective alternative to traditional means of regulation.¹⁹⁶ Government norm-shaping efforts often take the form of informing the public, be it through ad campaigns or educational materials.¹⁹⁷ Governments and non-governmental entities¹⁹⁸ regularly engage in "persuasive techniques" to encourage changes in behavior.¹⁹⁹ Persuasive techniques could include informational campaigns that educate the public about specific programs and how they operate.²⁰⁰ Other avenues include more explicit communication methods like public announcements or ads that use celebrities to encourage certain behaviors.²⁰¹ It might also include an educational curriculum designed by the government.²⁰² These persuasive techniques show the public the importance of an issue and in the process make the public feel compelled to engage in some type of action—or guilty if it does not.

¹⁹¹ *Id.* at 1231–32. Recycling has also been called "costly and ineffectual." John Tierney, *The Reign of Recycling*, N.Y. TIMES (Oct. 3, 2015), http://www.nytimes.com/2015/10/04/opinion/sunday/the-reign-of-recycling.html.

¹⁹² Michael P. Vandenbergh, Order Without Social Norms: How Personal Norm Activation Can Protect the Environment, 99 Nw. U. L. REV. 1101, 1138 (2005).

¹⁹³ See, e.g., Adam Chandler, Why Americans Lead the World in Food Waste, ATLANTIC (July 15, 2016), https://www.theatlantic.com/business/archive/2016/07/american-food-waste/491 513

¹⁹⁴ See Veit, supra note 14, at 4.

¹⁹⁵ Carlson, *supra* note 91, at 1238–39.

¹⁹⁶ *Id.* at 1233; Sunstein, *supra* note 182, at 948–49 ("A regulatory policy that targets social norms may well be the cheapest and most effective strategy available to a government seeking to discourage risky behavior.").

¹⁹⁷ Carlson, *supra* note 91, at 1235 (describing government efforts in the context of recycling).

¹⁹⁸ See Light, supra note 32, at 39–40 (explaining that private entities may engage in disclosure and reporting).

¹⁹⁹ Carlson, supra note 91, at 1269.

²⁰⁰ Id.

²⁰¹ Id. at 1269-70.

²⁰² Id.

"The best way to change norms is through education."²⁰³ Education through "[i]nformational campaigns can increase knowledge and signal the importance of desired behavior."²⁰⁴ Michael Vandenbergh argues that "norms will be activated and behavior changed when an individual believes that her behavior is the cause of an environmental problem and that a change in that behavior will lessen the problem."²⁰⁵ In the context of food waste, information and public education campaigns have been launched by retailers (Walmart), non-profit—private collaborations (NRDC/Ad Council), and the federal government.

The federal government is no stranger to using information and public education campaigns on food waste as a way to shape behavior.²⁰⁶ During World War I, the U.S. Food Administration was established to manage the wartime supply, conservation, distribution and transportation of food.²⁰⁷ This agency published posters with slogans like "Food is Ammunition—Don't waste it."²⁰⁸ Posters with similar messages about fighting food waste appeared during World War II.²⁰⁹

In 2013, the USDA and the EPA collaborated to educate the public about the consequences of wasting food though the Food Waste Challenge and the Food Recovery Challenge.²¹⁰ These campaigns provided information to the public on the problem of food waste and strategies for attacking the problem through text and visuals like the food recovery hierarchy described earlier in this article.²¹¹ Government websites offer implementation guides and toolkits to community organizations, local governments, and businesses to "provide[] behavior change and outreach tools designed to assist individuals and households to implement strategies to reduce wasted food in their homes."²¹²

²⁰³ Babcock, supra note 116, at 118.

²⁰⁴ Carlson, supra note 91, at 1269.

²⁰⁵ Vandenbergh, supra note 192, at 1138.

²⁰⁶ The government has also used information to combat environmental harm. See Robert H. Cutting et. al., Spill the Beans: Goodguide, Walmart and EPA Use Information as Efficient, Market-Based Environmental Regulation, 24 Tul. Envtl. L.J. 291 (2011) ("In the environmental realm, the environmental assessment processes (both state and federal, public and private) utilize information to shape behavior, as do statutes such as the Toxic Substances Control Act, Emergency Planning and Community Right-To-Know Act (EPCRA), Safe Drinking Water Act, and even the Beach Bill.").

²⁰⁷ Laura Schumm, Food Rationing in Wartime America, HISTORY (May 24, 2014), http://www.history.com/news/hungry-history/food-rationing-in-wartime-america.

²⁰⁸ Food Waste: WWI: 1914–1918, UTAH ST. U., http://exhibits.usu.edu/exhibits/show/food-waste/timeline/pwwi (last visited Feb. 22, 2018).

²⁰⁹ Food Waste: WWII: 1939–1945, UTAH ST. U., http://exhibits.usu.edu/exhibits/show/food-waste/timeline/wwii (last visited Feb. 22, 2018).

²¹⁰ USDA and EPA Launch U.S. Food Waste Challenge, U.S. DEP'T AGRIC. (June 4, 2013), http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2013/06/0112.xml.

²¹¹ Food: Too Good to Waste Implementation Guide and Toolkit, ENVTL. PROT. AGENCY, https://www.epa.gov/sustainable-management-food/food-too-good-waste-implementation-guide-and-toolkit (last visited Feb. 17, 2017).

²¹² Id.





The federal government has also engaged in the practice of setting a goal or target for food waste, a practice commonly used to address sustainability initiatives.²¹³ In 2015, the USDA and EPA announced the first ever domestic goal to reduce food waste by half by 2030.²¹⁴ The goal is to cut "food loss at the retail and consumer level in half, by approximately 66 billion pounds."²¹⁵ This approach is similar to the state and local "waste diversion goals" of the 1990s to divert waste from landfills and to encourage recycling²¹⁶ or the zero waste goals of today.²¹⁷ Ann Carlson has categorized these efforts as "aimed at norm change."²¹⁸ In the context of the USDA/EPA goal, the target is designed to get states, municipalities, businesses, and institutions, and ultimately the individuals they serve, to think differently about food-waste disposal.²¹⁹

Private entities, non-profits, and businesses are also trying to influence norm change as it relates to food waste through education. In 2016, the NRDC and the Ad Council

Thomas Damassa et al., *The U.S. Greenhouse Gas Reduction Targets*, WORLD RESOURCES INST. (Dec. 2014), http://www.wri.org/publication/us-greenhouse-gas-reduction-targets (noting President Obama's Climate Action Plan).

United States 2030 Food Loss and Waste Reduction Goal, ENVTL. PROT. AGENCY, https://www.epa.gov/sustainable-management-food/united-states-2030-food-loss-and-waste-reduction-goal (last visited Feb. 20, 2018).

²¹⁵ Id.

²¹⁶ Carlson, supra note 91, at 1264.

²¹⁷ See, e.g., How Communities Have Defined Zero Waste, Envtl. Prot. Agency, https://www.epa.gov/transforming-waste-tool/how-communities-have-defined-zero-waste (last visited Feb. 26, 2018).

²¹⁸ Carlson, supra note 91, at 1264.

²¹⁹ See USDA and EPA Launch U.S. Food Waste Challenge, supra note 210.

launched a public ad campaign called "Save the Food."²²⁰ Unlike the USDA and EPA efforts that hope to engage community organizations, local governments, and businesses, the NRDC Ad Council ads target consumers through television, print, and web advertising.²²¹ These ads direct audiences to the Save the Food website to learn more about food waste and how to reduce food waste.²²² The site provides tips on making use of leftovers, storing foods, and developing meal and shopping plans.²²³ In this example, it is a non-profit entity (NRDC), not the government, choosing the instrument by which to regulate (education).

Another norm that is being addressed through non-governmental actors (a private governance approach) is consumers' preference for perfectly shaped and colored fruits and vegetables. Ugly or "wonky" or cosmetically challenged fruits and vegetables are often not harvested or sold because customers gravitate towards the fruit or vegetable with the perfect shape and color.²²⁴ The smallest dent or bruise turns the average consumer away. Retailers like Whole Foods, Giant Eagle, and Wal-Mart are combating food waste through pilot programs that sell wonky food.²²⁵ For example, Wal-Mart's pilot program in Florida sells weather damaged apples at a reduced price.²²⁶ Giant Eagle has launched a program called Produce with Personality in its Pittsburgh area stores to sell blemished fruits and vegetables at reduced prices.²²⁷ Whole Foods has teamed up with Imperfect Produce to test the sale of "funky" fruits and vegetables at stores in Northern California.²²⁸

There are also smaller, more targeted efforts to change our attitudes about perfect produce. For example, Hasbro, the maker of Mr. Potato Head has partnered with a British grocery store to make and sell a wonky Mr. Potato head to raise awareness among children about food waste and raise money for the food waste charity Foodshare.²²⁹ In

NRDC and Ad Council Launch New "Save the Food" National Public Service Campaign, AD COUNCIL (Apr. 20, 2016), http://www.adcouncil.org/News-Events/Press-Releases/NRDC-and-Ad-Council-Launch-New-Save-the-Food-National-Public-Service-Campaign.

²²¹ Id.

²²² Id.

²²³ Id.

²²⁴ See, e.g., Chandler, supra note 193.

Heather Haddon, Supermarkets Make Stars Out of Weird Apples, Knobbled Carrots and 'Spuglies', Wall Street J. (Sept. 22, 2016), http://www.wsj.com/articles/in-supermarkets-now-weird-apples-knobbled-carrots-and-spuglies-1474561531.

Phil Wahba, Walmart Will Start Selling 'Ugly' Fruit to Reduce Food Waste, FORTUNE (July 22, 2016), http://fortune.com/2016/07/22/walmart-apples.

²²⁷ Misfit Fruits and Veggies Coming to Whole Foods, Ind. Pub. Media (Mar. 9, 2016), http://indianapublicmedia.org/eartheats/misfit-fruits-veggies-coming-foods; Imperfect Teaming up with Whole Foods Market to Sell "Ugly" Produce, Foodtank, https://foodtank.com/news/2016/03/imperfect-teaming-up-with-whole-foods-market-to-sell-ugly-produce (last visited Feb. 17, 2017).

Allison Aubrey, From Ugly To Hip: Misfit Fruits and Veggies Coming to Whole Foods, NAT'L PUB. RADIO: THE SALT (Mar. 7, 2016), http://www.npr.org/sections/thesalt/2016/03/07/469530045/from-ugly-to-hip-misfit-fruits-and-veggies-coming-to-whole-foods.

James Grebey, Hasbro Made a Misshapen Mr. Potato Head to Raise Awareness About Food Waste, Insider (June 27, 2016, 3:59 PM), http://www.thisisinsider.com/weird-mr-potato-head-raises-awareness-about-food-waste-2016-6.

2015, New York City chef Dan Barber created a pop-up restaurant, wasteED, and served more than 600 pounds of ugly vegetables.²³⁰ Gleaning—the practice of collecting and donating produce²³¹—has become more popular.²³² Farm-to-foodbank operations and entrepreneurs rescue misshapen and surplus produce, which might otherwise end up in a landfill, and sell or donate the produce at a reduced price to individuals and foodbanks.²³³

Date labels, wonky food, and gleaning are three examples of attacking the food waste problem by focusing on areas of the food supply chain that appear higher in the Food Recovery Hierarchy prior to the "disposal" stage. Food waste is generated throughout the food supply chain and therefore action can be taken throughout it. Offering wonky food in grocery stores across the country is an excellent example of using social norms to modify behavior since, as consumers get more used to seeing imperfect produce, their aversion to selecting such items will fade.

Yet the wonky food example also implicates the next mechanism for regulating behavior: price. The retailers and restaurants in the examples above are not just selling funny-looking fruits and vegetables and hoping consumers get used to seeing that kind of produce in the store. Instead, they are encouraging consumers to choose wonky items by offering them at a reduced price. The use of market mechanisms is yet another option available for regulating food waste.

C. Market Mechanisms

Market mechanisms are a common, but sometimes controversial, method of regulation. Market-based regulatory instruments can create either positive or negative incentives. "Positive incentives seek to motivate actors to certain actions by promising a reward, whereas negative incentives aim to motivate actions by threatening a punishment." Certain behavior could be encouraged by providing a positive financial incentive, say through a subsidy, or discouraged through a negative incentive like a tax. A soda tax is an example of the government addressing a problem—obesity—through market mechanisms. Many states and cities have imposed an excise tax or sales tax on sugary beverages to deter consumption of these products and increase revenue for health care

²³⁰ WastED New York, WASTED, http://www.wastedlondon.com/history (last visited Feb. 17, 2017).

²³¹ Let's Glean! United We Serve Tool Kit, U.S. DEP'T AGRIC., https://www.usda.gov/documents/usda_gleaning_toolkit.pdf.

See, e.g., John Lorinc, *Urban Gleaning Goes Mainstream*, CITYLAB (Sept. 21, 2011), https://www.citylab.com/design/2011/09/urban-gleaning-movement/151.

Hungry Harvest gleans and sells produce at a 20 to 30 percent discount in the Washington, D.C. and Philadelphia areas. Maria Godoy, *Ugly Fruit Is Ripe for a Close-Up, as 'Shark Tank' Takes on Food Waste*, NAT'L PUB. RADIO: THE SALT (Jan. 8, 2016, 6:42 PM), http://www.npr.org/sections/thesalt/2016/01/08/462429929/ugly-fruit-is-ripe-for-a-close-up-as-shark-tank-takes-on-food-waste. Indiana's farm-to-food bank program operates in a similar way. *Ugly Produce Becomes a Life Line for Food Banks*, FOODTANK, https://foodtank.com/news/2015/09/farm-to-food-bank-saving-ugly-produce-and-providing-nutrition (last visited Feb. 17, 2017).

²³⁴ Lusine Aramyan et al., Market-based Instruments and Other Socio-economic Incentives Enhancing Food Waste Prevention and Reduction 16 (2016).

and disease prevention.²³⁵ Another prime example of the use of taxes to affect behavior can be found when considering taxes on alcohol and cigarettes.²³⁶

While taxes can be a powerful tool to regulate behavior, this tool has its share of critics. Some argue that this approach is paternalistic and infringes on an individual's ability to make her own choices²³⁷ while others argue that unintended behavior changes might occur, like choosing a still sugary juice beverage over soda, defeating the point of the tax in the first place.²³⁸ Still others complain that the revenue from the tax often does not go to the stated purpose, such as reducing obesity in the context of a soda tax.²³⁹

These market mechanisms can be used to address the problem of food waste in a number of different ways. Offering imperfect produce or wonky food at a reduced price, as described above, is using a market mechanism to encourage consumers to purchase and then eat produce they might not normally buy and eat. A different type of market mechanism, such as unit pricing for solid waste and garbage, known as "pay as you throw" (PAYT), is akin to the use of taxes to discourage behavior. It is an example of a negative market instrument that is being used to regulate food waste generated by individuals, although only on a very limited scale.²⁴⁰ In many parts of the country, garbage removal is paid for through property taxes or a fixed fee that does not reflect the amount of garbage taken away.²⁴¹ With these two methods, homeowners have no incentive to reduce waste.²⁴² Over the past thirty years, however, communities have been adopting the user-pay approach that is comparable to other services like water and electricity.²⁴³ With a PAYT program, consumers pay according to the volume or weight of garbage disposed; therefore, residents are provided with an economic signal, their garbage bill, as a way to reduce the amount of waste generated.²⁴⁴

While the structure of PAYT programs vary, the goal is the same: "to get the price charged to residential households for garbage collection to reflect its cost more accurately, and to make that price a part of an individual's decision about whether to throw something away or recycle it."²⁴⁵ As related specifically to food waste, a PAYT program

²³⁵ Sheila Fleischhacker & Joel Gittelsohn, Carrots or Candy in Corner Stores?: Federal Facilitators and Barriers to Stocking Healthier Options, 7 IND. HEALTH L. REV. 23, 40 (2010).

²³⁶ Id.

²³⁷ Katherine Pratt, A Constructive Critique of Public Health Arguments for Antiobesity Soda Taxes and Food Taxes, 87 Tul. L. Rev. 73, 110 (2012).

Victor Fleischer, Curb Your Enthusiasm for Pigovian Taxes, 68 VAND. L. REV. 1673, 1705 (2015).

But see, e.g., Ronnie Cohen, Berkeley Soda Tax Takes a Big Gulp Out of Sugary-Drink Sales, Reuters (Apr. 19, 2017), https://www.reuters.com/article/us-health-soda-tax/berkeley-soda-tax-takes-a-big-gulp-out-of-sugary-drink-sales-idUSKBN17L2RU.

²⁴⁰ Carlson, supra note 91, at 1268.

²⁴¹ Lisa A. Skumatz & David J. Freeman, Skumatz Econ. Research Assocs., Inc., Pay As You Throw (PAYT) in the US: 2006 Update and Analysis 2 (2006).

²⁴² Id.

²⁴³ Id.

²⁴⁴ Id.

See id. at 12. There are some concerns about PAYT programs, such as that they are too expensive for low-income individuals and encourage illegal dumping. See Carlson, *supra* note 91, at 1268–69.

has been the mechanism of choice for the South Korean government.²⁴⁶ Seoul, Korea has cut its food waste from 3,300 tons per day in 2012 to 3,181 tons per day in 2014.²⁴⁷ A PAYT program specific to food waste has not been adopted by cities in the United States, but negative incentives can be used nonetheless. For example, Seattle uses a negative incentive—a fee of \$1 for residences in violation of its compositing law—in its food waste ban.²⁴⁸ Some commentators question the effectiveness of such a small fee in deterring residents from wasting food.²⁴⁹

At the other end of the spectrum of available market mechanisms, a positive-incentive market approach can be found in the fiscal year 2016 omnibus budget that increased tax incentives for food donations. Before 2015, tax incentives for food donations were only available to C-corporations. Under the 2016 expansion, all businesses including C-corporations, S-corporations, limited liability corporations (LLCs), partnerships, and sole proprietors are eligible for general and enhanced tax deductions. Under the enhanced deduction, all businesses may deduct up to 15% of their taxable income for food donations.

Paralleling the federal tax scheme, many states have enacted similar state-tax incentives to encourage the donation of food.²⁵² New York, for example, recently passed legislation that allows farmers to claim up to \$5,000 annually through a refundable tax credit equal to 25% of the wholesale value of their food donations.²⁵³ New York's Farm to Foodbank Bill supplements existing federal legislation of food donations.

Legal clinics like Harvard's Food Law and Policy Clinic are working to help businesses understand the tax benefits of donating food, as well as the low potential for liability, due to the Good Samaritan Food Donation Act ("Good Samaritan Act").²⁵⁴

²⁴⁶ Chang May Choon, South Korea Cuts Food Waste With 'Pay as You Trash', Strait Times (April 24, 2016), http://www.straitstimes.com/asia/east-asia/south-korea-cuts-food-waste-with-pay-as-you-trash; see also Karim Chrobog, In South Korea, an Innovative Push to Cut Back on Food Waste, Yale: Environment360 (May 20, 2015), http://e360.yale.edu/features/in south korea an innovative push to cut back on food waste.

²⁴⁷ See Choon, supra note 246.

²⁴⁸ SEATTLE, WASH., MUNICIPAL CODE § 21.36.083(A)(2) ("Any violation of this section . . . by residential curbside or backyard customers shall result in an additional collection fee of \$1 per can collection.").

John Upton, Seattle to Fine Residents Who Fail to Compost, CLIMATE CENTRAL (Sept. 25, 2014) http://www.climatecentral.org/news/seattle-to-fine-residents-who-fail-to-compost-18087.

^{250 26} U.S.C. § 170(e)(3)(C) (2012). This is a special rule for contributions of food inventory. *Id.*

²⁵¹ Id. § 170(e)(3)(C)(ii).

²⁵² See, e.g., CAL. REV. & TAX CODE § 17053.12 (2016). California law also provides a tax credit for 50% of the costs of transporting donated food. *Id.*

²⁵³ Margaret Brown, New York Legislature Passes Farm to Foodbank Bill, NAT. RESOURCES DEF. COUNCIL (Sept. 26, 2016), https://www.nrdc.org/experts/margaret-brown/new-york-legislature-passes-farm-foodbank-bill.

²⁵⁴ See Harvard Food Law & Policy Clinic et al., Federal Enhanced Tax Deduction for Food Donation: A Legal Guide 1 (2016).

Enacted in 1996, the Good Samaritan Act²⁵⁵ immunizes donating individuals, grocers, restaurants, farmers, non-profits, and other entities²⁵⁶ from civil and criminal liability "arising from the nature, age, packaging, or condition of apparently wholesome food,"²⁵⁷ except in instances of "gross negligence or intentional misconduct."²⁵⁸ Although the Good Samaritan Act has been in existence for twenty years and can be found on the EPA's, USDA's, and many foodbanks' websites, it is underutilized.²⁵⁹ In addition to Harvard's program, law school programs, like the Food Recovery Project at the University of Arkansas and the National Gleaning Project at Vermont Law School, have made it a priority to inform the public about this law and its protections.²⁶⁰

There are some limitations to the Good Samaritan Act. First, it does not protect entities who serve tainted food. For example, if a soup kitchen receives donated meat from a grocery store or restaurant and that meat was not stored properly, the soup kitchen could be liable if one of its patrons becomes sick.²⁶¹ Charities are concerned with violating local health codes, especially when it comes to serving "leftover" food.²⁶² Finally, some argue that the Good Samaritan Act does not truly address the problem of hunger. Instead, it "is a feel-good law as opposed to legislation that appropriately places the responsibility of decreasing food insecurity with the government rather than private donors."²⁶³

"Pay as you throw" and tax incentives for donating food are just two examples of the use of market mechanisms to combat food waste. Others include discounts for soon-to-expire or blemished foods, state and federal grants or tax incentives to promote glean-

The Bill Emerson Good Samaritan Food Donation Act of 1996 (codified at 42 § U.S.C. 1791 et seq.). All 50 states enacted Good Samaritan food donation laws before enactment of the federal law. See David L. Morenoff, Lost Food and Liability: The Good Samaritan Food Donation Law Story, 57 FOOD & DRUG L.J. 107, 108 (2002). Morenoff notes that any preemption and constitutionality arguments to be made about this Act would be trumped by public policy concerns. See id. at 249. The U.S. Federal Food Donation Act, a federal version of the Good Samaritan Food Donation Act, was enacted in 2008. S. 2420, 110th Cong. (2008).

^{256 42} U.S.C. §§ 1791(b)(9)–(10) (2012).

²⁵⁷ Id. § 1791 (c)(1)–(2).

²⁵⁸ Id. § 1791(c)(3).

²⁵⁹ Stacey H. Van Zuiden, The Good Food Fight for Good Samaritans: The History of Alleviating Liability and Equalizing Tax Incentives for Food Donors, 17 Drake J. Agric. L. 237, 246 (2012) (pointing out that questions remain as to whether food donations have increased as a result); James Haley, The Legal Guide to the Bill Emerson Good Samaritan Food Donation Act, 2013 Ark. L. Notes 1, 1 (2013).

²⁶⁰ See Univ. Ark. Sch. of Law, Food Recovery Project, Food Recovery: A Legal Guide 1 (2013); The National Gleaning Project, Vt.L. Sch., http://forms.vermontlaw.edu/farmgleaning/indexnew.cfm?id=cat&&no=5 (last visted Apr. 16, 2018).

David Lazarus, Seeking a Solution to Wasted Food, L.A. TIMES (Mar. 22, 2013), http://articles.latimes.com/2013/mar/22/business/la-fi-lazarus-20130322.

Betty Wang, Donating Food to Charity? Chew on This Law, FINDLAW: L. & DAILY LIFE (June 9, 2013), http://blogs.findlaw.com/law_and_life/2013/06/donating-food-to-charity-chew-on-this-law html.

Jessica A. Cohen, Ten Years of Leftovers with Many Hungry Still Left Over: A Decade of Donations Under the Bill Emerson Good Samaritan Food Donation Act, 5 SEATTLE J. FOR SOC. JUST. 455, 457 (2006).

ing,²⁶⁴ and subsidies to private entities to encourage food-waste-reduction technologies.²⁶⁵ The installation of new technology leads to the final modality: the architecture or design of the built environment.

D. ARCHITECTURE OR BUILT ENVIRONMENT

Of the four modalities, architecture is perhaps the least recognized form of regulation, 266 but the built environment (both "bricks and mortar" and cyberspace) regulates behavior in powerful ways. Regulating through architecture occurs by "altering the physical or digital world to make certain conduct more difficult or costly,"267 or easier. A speed bump, for example, makes it more difficult to speed thereby decreasing the number of speeders and associated costs like accidents. A dedicated bike lane, on the other hand, might make it easier to ride to work, thereby increasing the number of bike riders, decreasing traffic, and reducing air pollution. Curbside recycling is another example of how a change in architecture can facilitate a change in behavior and work to strengthen norms. And architecture can complement other modes of regulating behavior. For example, Ann Carlson writes that "recycling bins[] provide participants an opportunity to make a visible statement about their environmentally proper behavior and, in turn, to see who is failing to cooperate." 269

David Levin notes that the unifying theme of architecture is that it works in the moment. "If you circumvent the architecture, other regulators may constrain your behavior but the architecture will not."²⁷⁰ "Architecture acts as an automatic buffer, but once breached, it ceases to operate as a constraint."²⁷¹ For example, if your physical environment has a bin to recycle a plastic bottle and you throw a plastic bottle in the garbage can instead of the recycle bin next to it, architecture is no longer the mechanism at work. You might feel a sense of guilt or be chastised by passerby (social norm), or you might be cited or fined for not following a recycling ordinance (laws and markets). Now imagine if the built environment had no recycling bins. Your only option would be to dispose of the bottle in the trash. In a world with no recycling bins, there is no guilt, no scolding, no citation, and no fine. This example demonstrates that architecture defines the universe of possible behavior.

One need only look at developing countries to see how architecture defines the universe of possible behavior in the food-waste context. Food sold in open air markets spoils faster than food kept in an enclosed supermarket.²⁷² Most food, however, spoils

²⁶⁴ See Sarah J. Morath, The Farm Bill: A Wicked Problem Seeking a Systematic Solution, 25 DUKE ENVTL. L. & POL'Y F. 389, 422 (2015) (discussing gleaning as part of the 2014 Farm Bill).

²⁶⁵ See Aramyan et al., supra note 234, at 16.

²⁶⁶ Schindler, Architectural Exclusion, supra note 104, at 1934.

²⁶⁷ Calo, *supra* note 87, at 775.

²⁶⁸ Carlson, supra note 91, at 1265.

²⁶⁹ Id. at 1266.

²⁷⁰ Daniel B. Levin, Building Social Norms on the Internet, 4 YALE SYMP. L. & TECH. 97, 97 (2002).

²⁷¹ Id.

Josh Gabbatiss, Another Side to Food Waste, Sustainable Food Tr. (July 1, 2016), http://sustainablefoodtrust.org/articles/another-side-to-food-waste.

before it even gets to market.²⁷³ Farms are often far away from urban centers and farmers must travel on dirt roads to sell their goods.²⁷⁴ Most post-harvest losses are the result of a lack of infrastructure, refrigeration, and storage.²⁷⁵ Many of these problems could be addressed through changes in the physical environment, such as improving roads and distribution channels.²⁷⁶

In developed countries, both large and small scale architectural design is at work to combat food waste. In most instances, a private entity is the regulator choosing this instrument. An example of large-scale physical changes to decrease food waste could include the installation of anaerobic digesters. An anaerobic digester is a sealed, oxygenfree tank, where the process of anaerobic digestion takes place.²⁷⁷ Anaerobic digestion is a biological process where organic material, such as food and animal waste, is used as feedstock and broken down (or digested) into useful products: biogas, which can be used for electricity production, and compost, which can be used as fertilizer.²⁷⁸ Anaerobic digestion is also a way to divert food waste from landfills, thereby decreasing the greenhouse gas emitted from landfills.²⁷⁹ Anaerobic digesters can be associated with wastewater-treatment plants, farms, or businesses or they can be standalone operations.²⁸⁰ The Heartland Biogass Project in northern Colorado is an example of a standalone operation.²⁸¹ At FirstEnergy Stadium and Progressive Field in Cleveland, Ohio, food waste is converted onsite into a slurry that is then picked up and taken off-site to an anaerobic digester.²⁸² While this technology is common in Europe and Asia,²⁸³ integrating this type of design into a city or business in the United States has been somewhat challeng-

²⁷³ SAVE FOOD: Global Initiative on Food Loss and Waste Reduction, FOOD & AGRIC. ORG., http://www.fao.org/save-food/resources/keyfindings/en (last visited Mar. 8, 2018).

²⁷⁴ See, e.g., Philemon Kiprono & Tomoya Matsumoto, Roads and Farming: The Effect of Infrastructure Improvement on Agricultural Input Use, Farm Productivity and Market Participation in Kenya 5–6 (2014).

²⁷⁵ Katharine Early, How Technology Can Prevent Food Waste in Developing Countries, Guardian (Dec. 18, 2014), https://www.theguardian.com/sustainable-business/2014/dec/18/technology-prevent-waste-food-developing-countries.

²⁷⁶ Roff Smith, Even Poor Countries End Up Wasting Tons Of Food, NAT'L PUB. RADIO (Sept. 28, 2015) http://www.npr.org/sections/goatsandsoda/2015/09/28/444188475/even-poor-countries-end-up-wasting-tons-of-food.

²⁷⁷ LILY FITZGERALD, U.S. ENVTL. PROT. AGENCY, ANAEROBIC DIGESTION OF FOOD WASTE IN NEW ENGLAND 2 (2015).

²⁷⁸ Id. at 3.

²⁷⁹ Centralized Anaerobic Digestion, REFED, http://www.refed.com/solutions/centralized-anaerobic-digestion (last visited Feb. 17, 2017).

²⁸⁰ See Fitzgerald, supra note 277, at 6.

²⁸¹ Luke Runyon, How Colorado Is Turning Food Waste Into Electricity, NAT'L PUB. RADIO (Apr. 5, 2014), http://www.npr.org/sections/thesalt/2016/04/05/472673127/how-colorado-is-turning-food-waste-into-electricity.

²⁸² Karen Farkas, Cleveland Browns and FirstEnergy Stadium to Divert Tons of Food Waste From Landfills into Sustainable Energy, CLEVELAND.COM (Nov. 21, 2013), http://www.cleveland.com/metro/index.ssf/2013/11/cleveland browns and firstener.html.

See Blake Anthony Klinkner, Anaerobic Digestion as a Renewable Energy Source and Waste Management Technology: What Must Be Done for This Technology to Realize Success in the United States?, 9 U. MASS. L. REV. 68, 88 (2014).

ing. These projects are expensive and often require modification to zoning laws and are also often met with resistance from residents.²⁸⁴

In contrast to large-scale architectural projects like an anaerobic digester, wasted food could be addressed in some small-scale designs like Lean Path technology. Lean Path is a waste-tracking system used by universities, hospitals, hotels, and restaurants to measure and monitor the food they throw away. This technology allows businesses to cut costs by identifying which foods are being over-ordered or over-served. For example, in less than one year of implementing the Lean Path food-waste-prevention system, Berea College in Kentucky reduced its pre-consumer food waste by 49% year-over-year and lowered plate cost significantly. Savings were re-invested to provide Berea students with a 4% increase in locally-grown goods without raising prices to students or increasing overall food costs.

Cyberspace (or digital space) is also being redesigned in a way that helps reduce food waste.²⁹⁰ The Food For All app, for example, allows "users to search for food deals close to their desired location, place their order for the leftovers (foods that did not/will not sell by the end of the day), and then go pick up the food at the designated time (before close of business, obviously, but time frames are determined by the businesses themselves)."²⁹¹ Another app called Spoiler Alert pairs organizations and companies who have surplus food with those in need.²⁹²

Still other designs are more "front-of-the house" and less reliant on technology. A restaurant serving smaller meals,²⁹³ a school removing trays from cafeterias²⁹⁴ and installing compost bins,²⁹⁵ or a grocery store using smaller shopping carts are all simple design changes that could be implemented to reduce food waste. Perhaps the most ideal change to architecture would be the promotion of local and regional food systems where farmers

²⁸⁴ See Fitzgerald, subra note 277, at 5.

²⁸⁵ Lean Path, http://www.leanpath.com (last visited Feb. 17, 2017).

Ira Sager, Don't Throw That Out! LeanPath Harnesses Data to Fight Food Waste, Bloomberg (Apr. 11, 2013), https://www.bloomberg.com/news/articles/2013-04-11/dont-throw-that-out-leanpath-harnesses-data-to-fight-food-waste.

²⁸⁷ Id.

²⁸⁸ Lean Path, Food Waste Prevention Case Study 1 (2013).

²⁸⁹ Id.

²⁹⁰ Colleen Kane, Could These Apps Solve America's Huge Food Waste Problem?, FORTUNE (Apr. 16, 2015), http://fortune.com/2015/04/16/could-these-apps-solve-americas-huge-food-waste-problem.

²⁹¹ Derek Markham, This App Reduces Food Waste by Offering Restaurant 'Leftovers' for 80% Off, Treehugger (Nov. 8. 2016), http://www.treehugger.com/green-food/app-reduces-food-waste-offering-restaurant-leftovers-80.html.

²⁹² Spoiler Alert, https://www.spoileralert.com (last visited Feb. 17, 2017).

²⁹³ Selina Juul, How to Control Portions and Reduce Food Waste, HUFFINGTON POST (Jan. 20, 2016), http://www.huffingtonpost.com/selina-juul/portion-control-reduse-food-waste_b_902 2674 html

²⁹⁴ Jenna Johnson, Cafeteria Trays Vanishing from Colleges in Effort to Save Food, WASH. POST (Feb. 11, 2017), http://www.washingtonpost.com/wp-dyn/content/article/2011/02/17/AR 2011021703343.html.

²⁹⁵ New Disposal Bins Help Campus Reduce Waste, S.F. St. News (Dec. 2012), https://news.sfsu.edu/new-disposal-bins-help-campus-reduce-waste.

and consumers live near each other. A shorter food supply chain has the potential to decrease food waste at the production and distribution stages. Changes to the physical and digital environment could work alone or together with mandates, educational campaigns, and taxes and their private analogs to reduce food waste.

V. Assessments and Recommendations

These examples illustrate that food-waste efforts are being launched by both public and private entities using a variety of formal and informal regulatory tools. At one time, the federal government was poised to tackle this problem beyond the educational efforts of the EPA/USDA Food Waste and Reduction Campaigns. In December 2015, Representative Chellie Pingree (D-Maine) introduced H.R.4184: the Food Recovery Act of 2015.²⁹⁶ This bill did not regulate behavior by proscribing certain behavior.²⁹⁷ Rather, the bill relied on positive market mechanisms by expanding tax credits and grants that are detailed in already existing legislation such as the Farm Security and Rural Investment Act of 2002, the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994, and the Solid Waste Disposal Act.²⁹⁸ In addition, the bill would have amended the Federal Food, Drug, and Cosmetic Act to reduce consumer confusion over food date labels.²⁹⁹ In addition, it would have also created a Food Recovery Office within the Department of Agriculture and require the Department of Agriculture to study food waste on farms.³⁰⁰

Another federal act, the Food Donation Act of 2017, was recently introduced in the House of Representatives by Representative Marcia Fudge (D-Ohio).³⁰¹ The purpose of this Act is to clarify and expand food donation under the Bill Emerson Good Samaritan Food Donation Act.³⁰² The fate of this bill is uncertain. For these reasons, it is worth considering alternatives to formal regulation at the federal level.

A. INTEGRATE INFORMAL REGULATORY TOOLS

One suggestion is to look beyond formal regulatory tools and more seriously consider how to behavior change occurs. Behavior change research in the context of environmental law has grown, and the results from this research are still underutilized by regulators. ³⁰³ Behavior change can occur through education or information campaigns on food waste, but there are additional tools available for use. ³⁰⁴ Governments, businesses, and non-profits should study and borrow from research on water and energy conservation and

²⁹⁶ H.R. 4184, 114th Cong. (2015).

²⁹⁷ Id.

²⁹⁸ Id.

²⁹⁹ Id.

³⁰⁰ Id.

³⁰¹ H.R. 952, 115th Cong. (2017).

³⁰² Id.

³⁰³ P. Wesley Schultz, Personalized Normative Feedback and the Moderating Role of Personal Norms: A Field Experience to Reduce Residential Water Consumption, 48 Env't & Behav. 686, 688 (2014).

³⁰⁴ See supra Part IV.C.

recycling. For example, one recent study looked at the effectiveness of normative messages in reducing residential water consumption and found that residents who received normative messages consumed less water.³⁰⁵ Water shaming, which is occurring throughout California as a result of the drought, is an excellent example of how nudging (or nagging) by community members is changing behaviors.³⁰⁶ Other possible informal tools include making public commitments, setting goals, using prompts and incentives, providing feedback, and employing the straightforward idea of convenience.³⁰⁷

Social messaging could be integrated into other approaches like mandates and architecture. For example, a provision in Seattle's composting ordinance includes placing a tag on the garbage can of those residents who are not in compliance with the ordinance (a type of shaming).³⁰⁸ Another example of integrating tools such as digital design and social norm messaging is Copia, an on-demand app that helps connect those with left-over food with those in need.³⁰⁹ In return, the donor receives testimonials and photos from the recipients of the food (a feedback mechanism), as well as Copia certification, which, like LEED certification, is a way for businesses to publicly declare their commitment to food-waste reduction (private governance tool).³¹⁰ Those entities in a position to regulate food waste should consider the integration of informal regulatory tools with more formal tools.

B. Reframe the Issue

Because the most preferred action is source reduction, food waste advocates should work to reframe food waste as a production and consumption problem rather than a disposal problem. Regulation may intervene at one of three stages of any organization's activities: the planning, acting, or output stages.³¹¹ Reframing the issue to look deeper at planning and acting stages could be more effective than just looking at the output: food waste. Industrial farming operations are well-known for their environmental harms, like air and water pollution, and most are exempt from environmental statutes,³¹² a concept legal scholars call "agricultural exceptionalism."³¹³ Like air and water, food waste generated on farms is not regulated. Farms, however, generate 16% of the food waste generated

³⁰⁵ See Schultz, supra note 303, at 688.

Matt Richtel, A Culture of Nagging Helps California Save Water, N.Y. TIMES, Oct. 12, 2015, at D1.

³⁰⁷ See Schultz, supra note 303, at 688.

³⁰⁸ SEATTLE, WASH., MUNICIPAL CODE § 21.36.083(B)(2)(b) ("As of January 1, 2015, the Director of Seattle Public Utilities shall establish a program of placing educational notices or tags on garbage containers with significant amounts of food waste and compostable paper.").

³⁰⁹ Copia, https://www.gocopia.com (last visited Feb. 17, 2017) (formerly "Feeding Forward").

³¹⁰ Id.

³¹¹ Cary Coglianese & David Lazer, Management-Based Regulation: Prescribing Private Management to Achieve Public Goals, 37 LAW & SOC'Y REV. 691, 691 (2003).

³¹² J.B. Ruhl, Farms, Their Environmental Harms, and Environmental Law, 27 Ecology L.Q. 263, 343 (2000).

³¹³ See Susan A. Schneider, A Reconsideration of Agricultural Law: A Call for the Law of Food, Farming, and Sustainability, 34 Wm. & MARY ENVTL. L. & POL'Y REV. 935, 935 (2010) ("The use of legal exceptions to protect the agricultural industry, is pervasive."). This includes labor laws, environmental regulations, and anti-trust restrictions. See id.

ated in the United States.³¹⁴ Food waste arises when farmers overproduce or are unable to sell theor crops because of aesthetic reasons. Many of these farmers want to donate their excess crops, but cannot afford to pay someone to pick the produce that will donated instead of sold. Recognizing this, many non-profits and foodbanks are starting to assist farmers with the "pick and pack out" (PPO) cost.³¹⁵ Expanding these efforts may be easier than enacting legislation or changing norms.

C. REGULATE THROUGH DATA

Efforts to reframe the food waste issue should be coupled with gathering more information about the food that is actually wasted. Food-waste advocates should remember that what gets measured gets done.³¹⁶ Developing good environmental metrics will thus help to clarify appropriate targets or goals.³¹⁷ These metrics should include not only the rates at which different foods are wasted, but should also consider the resources used to produce the food. For example, meat is a relatively small part of food waste.³¹⁸ Yet, the environmental impacts of meat in terms of greenhouse gas emissions, land use, and water consumption per calorie are significant, suggesting that reducing food waste from meat should be part of a broader discussion about sustainable food production.³¹⁹

Advocates are beginning to recognize gaps in food waste data and the need for more comprehensive studies. With a nearly one-hundred million dollar grant from the Rockefeller foundation, NRDC began a multi-city "food waste characterization" study in the fall of 2016.³²⁰ The first of its kind, this study involves researchers who will keep a weekly diary of what food is being wasted and why.³²¹ Once this study is complete, private and public regulators and advocates should use this data to refine and readjust food-waste projects.

VI. CONCLUSION: ALL HANDS ON DECK

For any given problem, the options for who can regulate, what can be regulated, and how the regulation will occur are endless. More and more environmental law scholars are advocating for collaboration and integration, using a variety of tools in addition to

^{314 27} Solutions to Food Waste, supra note 85.

Jimmy Nguyen, Farmers Help Fight Food Waste by Donating Wholesome Food, U.S. Dep't Agric: Food & Nutrition (Apr. 3, 2015), http://blogs.usda.gov/2015/04/03/farmers-help-fight-food-waste-by-donating-wholesome-food.

³¹⁶ Galit A. Sarfaty, Regulating Through Numbers: A Case Study of Corporate Sustainability Reporting, 53 VA. J. INT'L L. 575, 575 (2013).

³¹⁷ Kuh, Personal Environmental Information, supra note 100, at 1565.

Jean C. Buzby et al., Food Loss – Questions About the Amount and Causes Still Remain, U.S. Dep't Agric: Amber Waves (June 2, 2014), https://www.ers.usda.gov/amber-waves/2014/june/food-loss-questions-about-the-amount-and-causes-still-remain.

³¹⁹ Lipinski, supra note 69, at 6.

Whitney Pipkin, *Garbage Can Teach Us a Lot About Food Waste*, Smithsonian (Aug. 26, 2016), www.smithsonianmag.com/science-nature/garbage-can-teach-us-lot-about-food-waste-180960254.

³²¹ Id.

traditional regulatory means. The examples in this Article illustrate how industry, government, and non-profits are confronting our food-waste problem. All four modalities—mandates, social norms, markets, and architecture—are being employed by local, state, and federal actors, as well as businesses, NGOs, and individuals. A multi-modal approach has become increasingly common and necessary to address today's environmental problems, which often arise as the result of individual behavior. While the effectiveness of the various approaches has yet to be seen, as the food date-label example illustrates, industry is responding. And if industry behavior can change, perhaps consumer behavior can change too.

Sarah Morath is an Associate Clinical Professor at the University of Houston Law Center. Earlier versions of this paper were presented at the Sabin Colloquium for Innovative Environmental Law Scholarship at Columbia Law School in 2015, the Vermont Environmental Law Colloquium in 2015, and the Yale Food Systems Symposium in 2016. The author thanks the 2015 participants of the Sabin Colloquium for their invaluable feedback at an early stage in the project.

WIND ADVISORY: NAVIGATING WIND LEASE NEGOTIATIONS AND ETHICS

By Kirsten A. Johansson

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I. Introduction

Since the beginning of the twenty-first century, wind has made its way to the fore-front of the energy industry as an alternative form of energy. With this boom in the wind industry came a new era for energy lawyers. Wind leases were different from the leases energy lawyers had typically dealt with, as these leases required enormous amounts of land to be economically feasible, generally requiring multiple landowners to come together to sign a lease. Before this wind boom, energy lawyers generally were hired to represent a single landowner in a transaction. Today, the lawyers involved with wind lease negotiations are hired to represent large groups of people, ranging from dozens to hundreds of individuals at one time. This new era introduces a unique set of issues for

See Rod E. Wetsel & Steven K. DeWolf, Ride Like the Wind: Selected Issues in Multi-Party Wind Lease Negotiations, 1 Tex. A&M J. Prop. L. 447, 448 (2014).

Id. at 453–54 ("Even the smallest wind farms . . . cover about 15,000 to 20,000 acres each, whereas the larger ones . . . cover over 100,000 acres.").

³ Id. at 454.

⁴ See Wetsel & DeWolf, supra note 1, at 452–53.

⁵ See id. at 448. One wind project, E On Rosco, consisted of over three hundred landowners. *Id.* at 454.

lawyers in terms of their ability to comply with the Model Rules of Professional Conduct.⁶

This Note examines the Model Rules of Professional Conduct and how these rules apply to attorneys working on wind leases. The Note is split into two parts: the first part examines the ethical considerations regarding the joint representation commonly used in wind lease negotiations, and the second part evaluates the reasonableness of fees and fee collection methods.

Specifically, this Note first examines the scope and objectives of the representation, evaluating the engagement letter presented to the clients in a joint representation. Next, I evaluate the duties of lawyers to their clients with respect to diligence and communication, and how such obligations apply in cases where lawyers negotiate wind leases for dozens of clients simultaneously. Finally, I address additional potential issues that arise from multi-party representation, such as confidentiality and conflicts of interest. Although some of these issues will be addressed by obtaining the informed consent of the client, at times lawyers will be forced to withdraw from representation due to such conflicts. As a result, this part necessarily also addresses the proper way for a lawyer to terminate representation.

The second part of this Note analyzes appropriate fees as well as proper methods of fee payment. Wind leases often include provisions in which the wind developer seeking the lease agrees to pay for the landowners' legal representation. This type of agreement can make it difficult for lawyers involved in wind lease negotiations to comply with the Model Rules of Professional Conduct, since the party paying the fees is not the client. Lastly, and perhaps most importantly in the context of legal fees, this part addresses the appropriateness of contingency fees as a method of payment for representation during the wind lease negotiations.

II. JOINT REPRESENTATION

Any lawyer undertaking representation of multiple clients in a single transaction must take particular care to ensure compliance with the Model Rules of Professional Conduct ("Model Rules").⁷ Wind leases require extra care due to the vast number of parties that may be involved in a single transaction.⁸ Lawyers negotiating wind leases for groups of clients must be mindful in defining the scope and objectives of the representation, meeting their duty of diligence, and maintaining appropriate communication with

The American Bar Association (ABA) created the Model Rules of Professional Conduct to ensure lawyers' actions are ethical. See Model Rules of Prof'l Conduct preamble (Am. Bar Ass'n 1969). Most state bar associations have adopted disciplinary rules very similar to (though not identical to) the Model Rules of Professional Conduct. E.g. Tex. Disciplinary Rules Prof'l Conduct, reprinted in Tex. Gov't Code Ann., tit. 2, subtit. G, app. A (West 2013). Attorneys must comply with the disciplinary rules in the state where they are practicing. This Note, however, focuses solely on the Model Rules of Professional Conduct.

⁷ Lucian T. Pera, The Ethics of Joint Representation, 40 LITIGATION, Fall 2013, at 45, 45-46.

⁸ Wetsel & DeWolf, supra note 1, at 459–61.

clients.⁹ Additionally, the attorney must be careful to avoid conflicts of interest and disclosing confidential information of individual clients.¹⁰ Where a conflict of interest arises to which the clients cannot consent, the lawyer must withdraw.¹¹ Thus, before engaging in a multi-party representation, the lawyer should inform the clients of the potential issues that may arise during the wind lease negotiations.¹²

A. Scope and Objective of Representation (Model Rule 1.2)

From the outset, an attorney must discuss the scope and the objectives of the representation with the clients.¹³ Since a wind lease involves multiparty representation, it is important for the lawyer to define the scope of the representation for the group, and clearly state the objectives of the parties. Typically, such disclosure is accomplished through the engagement letter after the lawyer has accepted the representation.¹⁴

Model Rule 1.2 sets the guidelines for defining the scope of representation and the allocation of authority between a client and his or her lawyer.¹⁵ It explains that

a lawyer shall abide by the client's decisions concerning the objectives of representation and \dots shall consult with the client as to the means by which they are to be pursued. A lawyer may take such action on behalf of the client as is impliedly authorized to carry out the representation.¹⁶

Additionally, "[a] lawyer may limit the scope of the representation if the limitation is reasonable under the circumstances and the client gives informed consent."¹⁷

To comply with the Model Rules, the scope of representation should be addressed at the initial meeting with the landowner group. From the beginning, there should be an open discussion about what the landowners want to do to obtain favorable results in the wind lease negotiation.¹⁸ At this point, the attorney should also discuss the advantages and disadvantages of joint representation, as well as the fee arrangement.¹⁹

After the discussion with the group of landowner clients, the attorney must memorialize the decisions about the scope and objectives made by the landowners in an engagement letter.²⁰ This letter is critical for the joint representation. By agreeing to the joint representation, the landowners are consenting to waive the potential conflicts of interest and are agreeing to allow the firm to advocate for the common purpose of achieving a

⁹ See generally Pera, supra note 7 (explaining the various ethical issues lawyers involved in joint representation may encounter).

¹⁰ Model Rules of Prof'l Conduct r. 1.7 (Am. Bar Ass'n 2016).

¹¹ Id. at r. 1.16.

¹² *Id.* at r. 17 cmts. 18–19; Pera, supra note 7, at 48.

See Model Rules of Prof'l Conduct r. 1.2 cmts. 6–8; Wetsel & DeWolf, supra note 1, at 460.

¹⁴ Wetsel & DeWolf, supra note 1, at 460; see also Pera, supra note 7, at 50.

¹⁵ Model Rules of Prof'l Conduct r. 1.2.

¹⁶ Id. at r. 1.2(a).

¹⁷ Id. at r. 1.2(c).

¹⁸ See Wetsel & DeWolf, supra note 1, at 460-61.

¹⁹ Id

²⁰ Id. at 460; see also Pera, supra note 7, at 50.

favorable outcome for the group.²¹ No one landowner's interests can be advocated by the attorney at the expense of another landowner's interests.²² This fact must be made clear to the landowners in the initial meeting, as well as in the engagement letter.²³ Additionally, the engagement letter should define the matter(s) that the lawyer is being hired to handle, and explain that, at the conclusion of the matter, the landowners will no longer be clients.²⁴ Each landowner must then sign the engagement agreement as a condition of being included as a member of the group.

It is important to note that joint representation is not used in all wind lease negotiations involving multiple landowners. In some circumstances, the individual landowners will decide to hire separate lawyers. Alternatively, a group of landowners can form a "landowner wind energy association"²⁵ to reduce conflicts and potentially increase their bargaining power.²⁶ This concept allows "the collective wind and land resource of all the members of the association that provide this strength."²⁷ The landowner wind energy association model allows for those group members who do not end up with wind turbines on their land to receive a portion of the royalties based on their membership in the association.²⁸ Once it is formed, the members appoint a board of directors to research the desirable characteristics of pooling their land and hire an attorney to represent the interests of the association.²⁹ In this situation, the board decides on the scope and objectives of the representation.³⁰ The client is the association and, because there is only one client, none of the potential ethical issues of joint representation arise.³¹

²¹ Sample Engagement Letter from Rod E. Wetsel, Managing Partner, Wetsel, Carmichael & Allen, L.L.P. to client (March 9, 2016) [hereinafter Sample Engagement Letter] (on file with author).

MODEL RULES OF PROF'L CONDUCT r. 1.7(a)(1)–(2); see also, Pera, supra note 7, at 45–46 (explaining the necessity of treating all clients equally in joint representation).

²³ See Model Rules of Prof'l Conduct at r. 1.7 cmt. 3; see also Pera, supra note 7, at 47–48.

See, e.g., Sample Engagement Letter, supra note 21.

Introduction to Landowner Wind Energy Associations, WINDUSTRY, at 1, http://d3n8a8pro7vhmx.cloudfront.net/windustry/legacy_url/1521/Introduction__20to_LWEA_0.pdf (last visited Apr. 15, 2018) [hereinafter WINDUSTRY].

See id. at 1–2 (explain the benefits of landowner wind energy associations); Shannon L. Ferrell, The Technical and Ethical Challenges for Lawyers in Evaluating Wind Energy Agreements, 17 Drake J. Agric. L. 55, 73 (2012) ("With a landowner association, a group of landowners agree to 'pool' their acreages together as one block and to negotiate collectively for one wind energy agreement that encompasses that entire acreage.").

WINDUSTRY, supra note 25, at 1.

²⁸ Id. at 2.

²⁹ Id. This is proper under Model Rule 1.13, which states: "A lawyer employed or retained by an organization represents the organization acting through its duly authorized constituents." MODEL RULES OF PROF'L CONDUCT r. 1.13 (Am. BAR ASS'N 2016).

WINDUSTRY, supra note 25, at 2.

However, the lawyer may need to advise prospective members of the association of the need to seek independent counsel before agreeing to join the association. MODEL RULES OF PROF'L CONDUCT r. 1.8(a)(2).

B. DILIGENCE AND COMMUNICATION (MODEL RULES 1.3 AND 1.4)

Once the attorney has undertaken the representation, he or she is bound by the model rules to "act with reasonable diligence and promptness in representing a client."³² The attorney's workload must be controlled so that each matter can be handled competently,³³ or else the attorney may be subjected to sanctions.³⁴

Model Rule 1.4 explains the lawyer's duties of communication during the scope of the representation, as follows:

(a) A lawyer shall:

- (1) promptly inform the client of any decision or circumstance with respect to which the client's informed consent, as defined in Rule 1.0(e), is required by these Rules;
- (2) reasonably consult with the client about the means by which the client's objectives are to be accomplished;
- (3) keep the client reasonably informed about the status of the matter;
- (4) promptly comply with reasonable requests for information; and
- (5) consult with the client about any relevant limitation on the lawyer's conduct when the lawyer knows that the client expects assistance not permitted by the Rules of Professional Conduct or other law.
- (b) A lawyer shall explain a matter to the extent reasonably necessary to permit the client to make informed decisions regarding the representation.³⁵

From the time the engagement letter is executed, the lawyer must be in compliance with Model Rule 1.4 by explaining issues that require informed consent, such as joint representation and waiving conflicts, and consulting with the landowners about their group objectives.³⁶

However, once the representation has begun, communication may become more complex. Since wind lease negotiations often involve a large number of individuals, compliance with ethical duties to clients in the multiparty representation context in terms of answering individual questions is critical. Generally, lawyers will gather the group of landowners together for a "town hall meeting" where lawyers discuss the provisions of the lease and answer questions as a group.³⁷ This is an efficient way for the

³² Id. at r. 1.3.

³³ Id. at r. 1.3 cmt.2.

The Model Rules especially frown on procrastination. *Id.* at r. 1.3 cmt. 3 ("Perhaps no professional shortcoming is more widely resented than procrastination. A client's interests often can be adversely affected by the passage of time or the change of conditions; in extreme instances, as when a lawyer overlooks a statute of limitations, the client's legal position may be destroyed. Even when the client's interests are not affected in substance, however, unreasonable delay can cause a client needless anxiety and undermine confidence in the lawyer's trustworthiness. A lawyer's duty to act with reasonable promptness, however, does not preclude the lawyer from agreeing to a reasonable request for a postponement that will not prejudice the lawyer's client.")

³⁵ Id. at r. 1.4.

³⁶ See supra Part II.A.

³⁷ Wetsel & DeWolf, supra note 1, at 454–55.

lawyer to distribute information and avoid repetitive questions.³⁸ However, responding to inquiries beyond the large town hall meetings may become difficult.

For example, the Model Rules of Professional Conduct require that, when a client makes a reasonable request for information, the lawyer must promptly reply.³⁹ This requirement may prove challenging, if not impossible, in the wind context where there are often hundreds of clients. When the lawyer undertakes a wind lease negotiation involving representation in a remote place, the attorney must be prepared to travel frequently to meet with the clients as a group, individually, or both.⁴⁰ The lawyer should monitor the attendance at town hall meetings and keep landowners updated on the status of the lease negotiations to minimize the number of questions asked individually by clients.⁴¹ However, even with such meetings, lawyers involved in out-of-town wind lease negotiations may nevertheless be met with a flood of telephone calls, e-mails,⁴² and other requests for information, to which they must promptly respond. However, the lawyer is only required to respond to *reasonable* requests for information.⁴³

To promptly reply to all reasonable requests for information, the law firm or lawyer handling the wind lease negotiations may need to hire additional lawyers and staff. For example, when a law firm from Sweetwater, Texas, took on large group of out-of-town wind lease negotiations, the firm hired two new lawyers and increased its staff to accommodate the increased workload.⁴⁴ One lawyer from the firm stated, with respect to out-of-town wind lease negotiations, that the lawyer "needs to prepare to travel frequently and stay in less than desirable lodging for as long as it takes."⁴⁵ Additionally, when the attorneys handling the wind lease negotiations went to the meeting sites, almost all of the office staff went with them for the duration, bringing their office equipment along. The group stayed at the local Best Western so many times that all of the hotel staff knew the lawyers by their first names and even had food and drinks ready each time they arrived. Although such a high level of effort and travel may be inconvenient for some lawyers, this type of communication and diligence may be necessary to comply with the Model Rules.

³⁸ See id.

³⁹ Model Rules of Prof'l Conduct r. 1.4(a)(3)–(4), r. 1.4 cmt. 4.

⁴⁰ E-mail from Rod E. Wetsel, Managing Partner, Wetsel, Carmichael & Allen, L.L.P. to author (April 27, 2016) [hereinafter Wetsel E-mail] (on file with author).

⁴¹ See Wetsel & DeWolf, supra note 1, at 460–61.

⁴² Although it is beyond the scope of this Note, lawyers should be mindful that e-mail communications could create a unique issue, as many e-mail conversations are not covered by the attorney-client privilege.

MODEL RULES OF PROF'L CONDUCT r. 1.4(a)(4); but see MODEL RULES OF PROF'L CONDUCT r. 1.4 cmt. 4 ("A lawyer should promptly respond to or acknowledge client communications." This imperative does not include any reasonableness condition).

⁴⁴ Wetsel E-mail, supra note 40.

⁴⁵ Id.

⁴⁶ Id.

⁴⁷ Id.

C. Confidential Information, Conflicts of Interest, and Terminating the Representation (Model Rules 1.6, 1.7, and 1.16)

Multiparty representation can lead to a number of ethical issues involving confidentiality, conflicts of interest, and the need to terminate the representation.⁴⁸ As explained previously in this Note, all these potential conflicts of interest should be thoroughly explained to landowners involved in a wind lease negotiation in the engagement letter.⁴⁹ Nevertheless, throughout the representation the attorney must be mindful of the potential ethical issues involved with his or her representation. Ultimately, he or she will be held accountable if these concerns are not met.

Since wind groups generally do not "pool" their land,⁵⁰ the group bargaining strategy still results in individual leases. However, the lawyer represents the best interests of the entire group, not necessarily the individual landowners.⁵¹ As a result, the lawyer needs to make clear from the outset that bargaining on behalf of individuals, instead of the group, may lead to conflicts of interest. This problem should be disclosed to each client in writing, and the lawyer should receive written consent before agreeing to represent the parties.⁵²

1. Conflicts of Interest and Confidentiality

The idea that a lawyer must avoid representing conflicting interests is firmly rooted in American legal ethics, dating back to the 1908 Canons of Professional Conduct.⁵³ Today, the ethical considerations regarding conflicts of interest are primarily governed

See generally Pera, supra note 7 (explaining the various ethical issues that lawyers involved in joint representation may encounter).

⁴⁹ See supra Part II.A and accompanying notes.

As mentioned in Part II.A, *supra*, some groups of landowners choose to pool their resources and create a landowner wind energy association. Windustry, *supra* note 25, at 1. In this case, the lawyer represents a single client (the association) and will not have the ethical considerations associated with multiparty representation beyond the need to advise the potential association members to seek independent advice of counsel. *See* Model Rules of Prof'l Conduct r. 1.8(a)(2) (Am. Bar Ass'n 2016). However, since this approach is not currently the norm in the wind industry, most lawyers involved in a wind lease negotiations will need to be mindful of multiparty representation issues.

⁵¹ See Pera, supra note 7, at 45.

⁵² Model Rules of Prof'l Conduct r. 1.7(b)(4) (Am. Bar Ass'n 2016).

Teresa Stanton Collett, *The Promise and Peril of Multiple Representation*, 16 Rev. Litig. 567, 567 (1997). The 1908 Canon of Professional Conduct stated: "It is unprofessional to represent conflicting interests, except by express consent of all concerned given after a full disclosure of the facts. Within the meaning of this canon, a lawyer represents conflicting interests when, in behalf of one client, it is his duty to contend for that which duty to another client requires him to oppose. The obligation to represent the client with undivided fidelity and not to divulge his secrets or confidences forbids also the subsequent acceptance of retainers or employment from others in matters adversely affecting any interest of the client with respect to which confidence has been reposed." *Id.* (quoting Comm. on Code of Prof1 Ethics, Final Report to ABA (1908)).

by Model Rule 1.7, which generally prohibits a lawyer from representing a client if such a conflict exists.⁵⁴ This rule states that a concurrent conflict of interest exists if:

- (1) the representation of one client will be directly adverse to another client; or
- (2) there is a significant risk that the representation of one or more clients will be *materially limited* by the lawyer's responsibilities to another client, a former client or a third person or by a personal interest of the lawyer.⁵⁵

Both parts of Model Rule 1.7 can cause issues for attorneys representing a group of landowners in a wind lease negotiation. However, this conflict can be waived by the clients if:

- (1) the lawyer reasonably believes that the lawyer will be able to provide competent and diligent representation to each affected client;
- (2) the representation is not prohibited by law;
- (3) the representation does not involve the assertion of a claim by one client against another client represented by the lawyer in the same litigation or other proceeding before a tribunal; and
- (4) each affected client gives informed consent, confirmed in writing.⁵⁶

For interpreting Model Rule 1.7, the comments to the rule prove very helpful. For example, Comment 18 to Model Rule 1.7 further explains what is required of lawyers to obtain a client's informed consent and waiver of a current conflict:

Informed consent requires that each affected client be aware of the relevant circumstances and of the material and reasonably foreseeable ways that the conflict could have adverse effects on the interests of that client. . . . The information required depends on the nature of the conflict and the nature of the risks involved. When representation of multiple clients in a single matter is undertaken, the information must include the implications of the common representation, including possible effects on loyalty, confidentiality and the attorney-client privilege and the advantages and risks involved [internal citations omitted].⁵⁷

One foreseeable conflict of interest arises from issues involving confidentiality of information within the group represented by the lawyer. Confidentiality is discussed in Model Rule 1.6(a), which states: "A lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent, [or] the disclosure is impliedly authorized in order to carry out the representation or the disclosure is permitted [under some exigent circumstance]." Thus, when representing a wind group, the lawyer should explain from the outset that any information shared with the attorney will not be kept confidential from the rest of the group. This issue is further discussed by

⁵⁴ Model Rules of Prof'l Conduct r. 1.7(a).

⁵⁵ *Id.* (emphasis added).

⁵⁶ Id. at r. 1.7(b).

⁵⁷ Id. at r. 1.7 cmt. 18.

Id. at r. 1.6(a). Rule 1.6(b) lists certain situations in which a lawyer may disclose information. However, this is limited to extreme situations, such as when necessary to prevent reasonable certain death or substantial bodily injury, or to comply with a court order. *Id.* at 1.6(b).

⁵⁹ Pera, supra note 7, at 48.

Comment 31 to Model Rule 1.7.60 As the comment explains, "continued common representation will almost certainly be inadequate if one client asks the lawyer not to disclose to the other client information relevant to the common representation" due to the fact the lawyer has a duty of loyalty to each client.⁶¹ Comment 31 further recommends that the lawyer should, from the outset, "advise each client that information will be shared and that the lawyer will have to withdraw if one client decides that some matter material to the representation should be kept from the other."⁶²

Without such an agreement, a lawyer may create a conflict of interest during the representation by learning confidential information from one member of the joint representation that proves adverse to another member. Having an agreement that there will be no secrets between the lawyer and individual members within the group can help the lawyer to prevent conflicts of interest from arising during wind lease negotiations.⁶³ In his article on this topic, *The Ethics of Joint Representation*, Lucian T. Pera explains the importance of reaching such an agreement.⁶⁴ In his view, Model Rule 1.4

requires a lawyer to keep a client informed about all material aspects of the representation, but what if one of two joint clients instructs a lawyer not to share some particular information with another joint client? Under Rule 1.6, that instruction seals the lawyer's lips.⁶⁵

If the lawyer learns confidential information that is adverse to other clients, it creates a conflict of interest that would potentially force him to withdraw from the negotiations completely.⁶⁶

Although the lawyer explains his or her obligations and the landowners waive any conflicts at the initial meeting,

⁶⁰ Model Rules of Prof'l Conduct r. 1.7 cmt. 31.

⁶¹ Id

⁶² Id.

For example, one wind lease uses the following language: "Another consideration deals with 63 confidential information. In the course of your representation, it is likely we will learn confidential information. Although we assure you that we will be discreet within the bounds of proper representation and fair dealing, it is possible that certain confidences may become known among the Clients. This is a risk which would not be present were you to secure your own independent counsel to negotiate your lease. Multiple representation may result in divided or at least shared attorney-client loyalties. Although this Firm is not currently aware of any actual or reasonably foreseeable effects of such divided or shared loyalty, issues may arise as to which the Firm's representation may be compromised. We are required to disclose information concerning the Matter to any jointly represented client if we know the information will likely materially affect the position of that client, even if requested by another jointly represented client not to do so. We are also required to correct any false or misleading statement or omission concerning the Matter made by or on behalf of any jointly represented client, if we know that failure to do so would likely materially affect the position of any client, even if requested by another jointly represented client not to do so." Sample Engagement Letter, supra note 21.

⁶⁴ Pera, supra note 7, at 48.

⁶⁵ Id.

⁶⁶ See Model Rules of Prof'l Conduct r. 1.7 cmt. 29 ("Ordinarily, the lawyer will be forced to withdraw from representing all of the clients if the common representation fails.").

In successive meetings, the attorney must monitor attendance and dissemination of information to prevent any breaches of confidentiality and should carefully discern whether any conflicts of interest have arisen between any members of the group. If violations or conflicts are discovered, they must be thoroughly reviewed and discussed with the group before continuing. Additionally, the entry of any new members into the group should be disclosed.⁶⁷

There are also practical ways for lawyers to avoid potential conflicts. From the outset, lawyers involved in wind lease negotiations often find it necessary to spend significant time visiting with their initial points of contact to learn as much as possible about the background and history of the area and the families and persons involved (e.g., who was friendly to the wind project, whether there were any local feuds, divorces, lawsuits, or other issues among the people in the project area).⁶⁸ Having advance warning is always helpful in working around possible conflicts between parties.⁶⁹

As Rod E. Wetsel and Steven K. DeWolf discuss in their article, *Ride Like the Wind*, lawyers involved in wind lease negotiations often have trouble with scouts or "moles" from competing wind companies in the same area trying to attend their group meetings. As a result, the lawyers negotiating wind leases routinely seek a secured meeting place, such as a church or auditorium, with a sign-in sheet monitored by a firm employee. Typically, requiring identification of the attendees is not necessary because the lawyer's local contacts can identify the people who are a part of the represented group of landowners as well as potential moles. In any event, it is important that the lawyers negotiating the wind lease be very careful to talk to their group of clients about confidentiality and make sure everyone is, in fact, a client before beginning the wind lease discussions.

Conflicts may arise as the negotiations progress, especially if some landowners are more likely to have wind turbines placed on their property than others.⁷³ The attorney must disclose these conflicts as they arise and obtain written consent from the parties to comply with the Model Rules of Professional Conduct.⁷⁴ If the parties refuse to give written consent or later withdraw their consent, the lawyer must withdraw from the representation.⁷⁵

Additionally, there may be an issue with "holdouts" who think they can get a better deal by waiting until the last minute to sign the lease.⁷⁶ These holdouts may own land that is essential to the success of the deal, and thus threaten to block the entire project. Thus, holdouts can create significant problems for the parties who wish to sign the lease and their attorney.⁷⁷ To deal with such landowners, some wind companies have adopted

⁶⁷ Wetsel & DeWolf, supra note 1, at 461.

⁶⁸ Wetsel E-mail, supra note 40.

⁶⁹ See Wetsel & DeWolf, supra note 1, at 461.

⁷⁰ Id. at 464.

⁷¹ Wetsel E-mail, supra note 40.

⁷² See Wetsel & DeWolf, supra note 1, at 464.

⁷³ Wetsel E-mail, supra note 40.

⁷⁴ See Model Rules of Prof'l Conduct r. 1.7(b)(4) (Am. Bar Ass'n 2017).

⁷⁵ See id. at r. 1.16(a)(1), 1.7(a)–(b).

⁷⁶ Wetsel & DeWolf, supra note 1, at 463–64.

⁷⁷ Id. at 463.

an "all or nothing" approach that requires all landowners to sign the lease by a certain date or else the project will be cancelled. Although holdouts can create issues for lawyers involved in wind leases, generally they have not been a major problem in wind lease negotiations because of the large amounts of money wind projects can bring to small communities. This monetary boom creates a substantial amount of peer pressure by the remaining members of the community on the holdout to drop his or her (often outrageous) demands for the wind deal to go through.

2. TERMINATING THE REPRESENTATION

Under some circumstances, a lawyer may find it necessary or be forced to withdraw from representing a client. Model Rule 1.16 states a lawyer may withdraw under the following conditions:

- (1) withdrawal can be accomplished without material adverse effect on the interests of the client;
- (2) the client persists in a course of action involving the lawyer's services that the lawyer reasonably believes is criminal or fraudulent;
- (3) the client has used the lawyer's services to perpetrate a crime or fraud;
- (4) the client insists upon taking action that the lawyer considers repugnant or with which the lawyer has a fundamental disagreement;
- (5) the client fails substantially to fulfill an obligation to the lawyer regarding the lawyer's services and has been given reasonable warning that the lawyer will withdraw unless the obligation is fulfilled;
- (6) the representation will result in an unreasonable financial burden on the lawyer or has been rendered unreasonably difficult by the client; or
- (7) other good cause for withdrawal exists.81

Additionally, a lawyer must withdraw from representation if "the representation will result in violation of the rules of professional conduct or other law." This situation can potentially arise in wind group representation. For example, the attorney must withdraw if one landowner in the wind lease negotiation decides some material matter of the representation should be kept a secret from the other landowners in the group. Although from the outset the lawyer requires that the landowners waive confidentiality by allowing for no "secrets" within the group, such a waiver may be revoked. In such an event, the lawyer is required by the Model Rules to withdraw. Some lawyers involved

⁷⁸ Id. at 463-64.

⁷⁹ Wetsel E-mail, supra note 40.

⁸⁰ Id.

⁸¹ Model Rules of Prof'l Conduct r. 1.16(b) (Am. Bar Ass'n 2017).

⁸² *Id.* at r. 1.16(a)(1).

⁸³ See id. at r. 1.7 cmt. 31 ("The lawyer should, at the outset of the common representation and as part of the process of obtaining each client's informed consent, advise each client that information will be shared and that the lawyer will have to withdraw if one client decides that some matter material to the representation should be kept from the other.").

⁸⁴ *Id.* at r. 1.7 cmt. 21.

⁸⁵ See id. at r. 1.7, 1.16(a)(1).

in wind lease negotiations expressly set out this risk from the outset in the engagement letter.⁸⁶ If a lawyer withdraws, he or she must

take steps to the extent reasonably practicable to protect a client's interests, such as giving reasonable notice to the client, allowing time for employment of other counsel, surrendering papers and property to which the client is entitled and refunding any advance payment of fee or expense that has not been earned or incurred.⁸⁷

Another ethical issue that arises with the termination of representing a client in a joint representation transaction is whether the lawyer may still represent the remaining clients. Comment 29 to Model Rule 1.7 states: "Ordinarily, the lawyer will be forced to withdraw from representing all of the clients if the common representation fails." However, the lawyer can circumvent this type of conflict between the client whose representation is being terminated and his or her remaining clients in the joint representation by obtaining an "advance waiver." This agreement can be obtained in the engagement letter. Comment 22 addresses the issue of clients consenting to future conflicts. It explains that, while lawyers may request that clients waive future conflicts, "[t]he effectiveness of such waivers is generally determined by the extent to which the client reasonably understands the material risks that the waiver entails." In this case, the client's consent is very specific and known, so the consent is likely to be effective.

For example, one wind lease engagement letter stats: "We also ask you to recognize that, in the event an individual client exercises his or her right to employ his or her own counsel, forcing this law firm to withdraw from its common representation or if we are otherwise discharged or required to withdraw, the remaining clients may suffer severe hardship, potential prejudice, and undue expense." Sample Engagement Letter, *supra* note 21.

⁸⁷ Model Rules of Prof'l Conduct r. 1.16(d).

⁸⁸ Id. at r. 1.7 cmt. 29.

⁸⁹ Pera, *supra* note 7, at 48–49.

For example, one wind lease engagement letter states: "We ask each of our clients to acknowledge that this Firm cannot continue to represent any individual client if an actual conflict arises. Should that occur, the individual client will immediately advise the Firm of the conflict but will not discuss the specific circumstances with the Firm. The Firm will immediately withdraw from its representation of that individual client. In addition, if it becomes apparent that an actual conflict exists between the individual client and other clients, the Firm, on its own initiative, will immediately withdraw from its representation of that individual client." Sample Engagement Letter, *supra* note 21.

⁹¹ Model Rules of Prof'l Conduct r. 1.7 cmt. 22.

See id. ("The more comprehensive the explanation of the types of future representations that might arise and the actual and reasonably foreseeable adverse consequences of those representations, the greater the likelihood that the client will have the requisite understanding. Thus, if the client agrees to consent to a particular type of conflict with which the client is already familiar, then the consent ordinarily will be effective with regard to that type of conflict. If the consent is general and open-ended, then the consent ordinarily will be ineffective, because it is not reasonably likely that the client will have understood the material risks involved. On the other hand, if the client is an experienced user of the legal services involved and is reasonably informed regarding the risk that a conflict may arise, such consent is more likely to be effective, particularly if, e.g., the client is independently

In practice, terminating representation is rare in wind lease negotiations.⁹³ Lawyers involved in wind lease negotiations try to be as careful as possible from the outset in encouraging people to hire any lawyer of their choice (e.g. their family lawyer) upon the assurance that the attorney representing the larger group of landowners will work with the independent landowner's lawyer for the benefit of all.⁹⁴ On some occasions, a landowner may join the group and sign the engagement agreement, but later decide that he or she does not want to continue.⁹⁵ In such a case, unless there is a conflict, the lawyer may proceed in representing the rest of the group, subject to Model Rule 1.7.⁹⁶ The problem, of course, occurs when a conflict develops between members of the group that cannot be resolved. According to one wind attorney in West Texas, this has happened in very few cases, because generally the conflict is worked out among the landowners themselves, so lawyers involved in wind lease negotiations have not had to withdraw.⁹⁷

III. APPROPRIATE FEES

From the beginning, clients should be informed of what the lawyer's fees are and who will be paying the fees. 98 Often, legal fees will be reimbursed or paid by the wind company. 99 It is important that the lawyer sets a fee that is reasonable, and that the method of payment—if the wind developer is paying the lawyer's fee—complies with the Model Rules of Professional Conduct.

represented by other counsel in giving consent and the consent is limited to future conflicts unrelated to the subject of the representation.")

⁹³ Wetsel E-mail, supra note 40.

⁹⁴ Id.

⁹⁵ Id.

⁹⁶ See Model Rules of Prof'l Conduct 1. 1.7 cmt. 4, 29.

⁹⁷ See Wetsel E-mail, supra note 40. Although this is rare, instances where lawyers may be forced to withdraw do occur. For example, in a recent project Wetsel & Carmichael—a law firm in Sweetwater, Texas that commonly negotiates wind leases—was nearly forced to withdraw. The firm negotiated a wind lease and most of the clients had signed. However, one landowner on his own started to try to re-trade the deal with wind company. Fortunately, the wind company agreed to go back and give all of the clients the same new deal, so the firm was not forced to withdraw due to a conflict of interest. However, it was a close call. Id

Pera, *supra* note 7, at 50; *see also* Wetsel & DeWolf, *supra* note 1, at 460–61. Payment of fees should be discussed in the initial engagement letter. *See* Model Rules of Prof'l Conduct r. 1.5(b) ("The scope of the representation and the basis or rate of the fee and expenses for which the client will be responsible shall be communicated to the client, preferably in writing, before or within a reasonable time after commencing the representation Any changes in the basis or rate of the fee or expenses shall also be communicated to the client.").

⁹⁹ Wetsel & DeWolf, supra note 1, at 460–61.

A. Determining Fees (Model Rule 1.5)

Model Rule 1.5 states that "a lawyer shall not make an agreement for, charge, or collect an unreasonable fee or an unreasonable amount for expenses." To determine whether the fee is reasonable, the following factors should be considered:

- (1) the time and labor required, the novelty and difficulty of the questions involved, and the skill requisite to perform the legal service properly;
- (2) the likelihood, if apparent to the client, that the acceptance of the particular employment will preclude other employment by the lawyer;
- (3) the fee customarily charged in the locality for similar legal services;
- (4) the amount involved and the results obtained;
- (5) the time limitations imposed by the client or by the circumstances;
- (6) the nature and length of the professional relationship with the client;
- (7) the experience, reputation, and ability of the lawyer or lawyers performing the services; and
- (8) whether the fee is fixed or contingent.¹⁰¹

These factors are not exclusive in determining if the fee is reasonable.¹⁰² Several of these factors could be used to justify a large fee.¹⁰³ However, setting high fees may also discourage landowners from seeking appropriate legal advice. Fees should always be discussed at the beginning of the representation to comply with the Model Rules.¹⁰⁴

B. METHOD OF PAYMENT

The engagement agreement must state how the lawyer will be paid. As previously mentioned, wind developers commonly pay the expenses of an attorney for reviewing and negotiating the wind lease. However, such an approach can create problems under the Model Rules. For example, Model Rule 1.8(f) may create issues for lawyers who are hired to review leases for the landowners under a direct payment program.¹⁰⁵ It states:

A lawyer shall not accept compensation for representing a client from one other than the client unless:

- (1) the client gives informed consent;
- (2) there is no interference with the lawyer's independence of professional judgment or with the client-lawyer relationship; and
- (3) information relating to representation of a client is protected as required by Rule $1.6.^{106}$

¹⁰⁰ Model Rules of Prof'l Conduct r. 1.5(a).

¹⁰¹ Id.

¹⁰² Id. at r. 1.5 cmt. 1.

Ferrell, *supra* note 26, at 71–72; *see also* Peter H. Geraghty, ABA Ctr. for Prof'l Responsibility, When Two Plus Two Doesn't Equal Four 2 (2008), https://www.americanbar.org/content/dam/aba/administrative/professional_responsibility/when_two_plus_two.authcheckdam.pdf ("The 'time and labor required' language in 1.5(a)(1) has been a standard in ABA ethics rules for nearly 100 years.").

¹⁰⁴ Model Rules of Prof'l Conduct r. 1.5(b).

¹⁰⁵ Ferrell, *supra* note 26, at 74–75.

¹⁰⁶ Model Rules of Prof'l Conduct r. 1.8(f).

Moreover, Comment 11 to Model Rule 1.8 is particularly important in this context. It indicates that a lawyer shall not accept representation of a client when a third party is paying the fees unless the lawyer determines the third party will not interfere with the lawyer's professional judgment.¹⁰⁷ Also, the client must give informed consent for this type of fee agreement to be appropriate under the Model Rules of Professional Conduct.¹⁰⁸ To avoid such conflicts, Wetsel noted "the attorney is probably best advised to simply bill the client for the agreed fee, but defer collection until he or she receives reimbursement from the developer."¹⁰⁹ However, if the wind developer is being directly billed, the lawyer must be careful not to allow the wind developer to influence his or her judgment. The attorney can possibly accomplish this by creating two fee agreements: one for the client and one for the wind developer. The wind developer's fee agreement should explain that

the landowner is the only client in the representation, and that the developer will not be a client. It should also state the developer may not exercise any influence over the attorney's professional judgment, nor may the developer have any access to information obtained from the landowner by the attorney.¹¹⁰

Likewise, the attorney should obtain a written directive and consent from the clients addressed to the attorney allowing direct payment of their fees by the wind company.¹¹¹ These precautions should allow the attorney to avoid the potential conflicts stemming from having a third party pay the attorney's fees.

C. Contingency Fees

Whether attorneys may make their fees contingent on the potential wind rent on the royalties the client will receive from the wind is highly controversial. According to the Model Rules, "[a] fee may be contingent on the outcome of the matter for which the service is rendered," subject to certain exceptions. For a lawyer to use a contingency fee, the contingency fee agreement must be in writing and signed by the client. The contingency fee arrangement must determine the way in which the fee will be calculated, including the percentage the lawyer will accrue and whether expenses will be deducted from the recovery. 114

¹⁰⁷ *Id.* at r. 1.8 cmt. 11 ("Because third-party payers frequently have interests that differ from those of the client . . . lawyers are prohibited from accepting or continuing such representations unless the lawyer determines that there will be no interference with the lawyer's independent professional judgment and there is informed consent from the client.").

¹⁰⁸ Id.

¹⁰⁹ Wetsel & DeWolf, supra note 1, at 461.

¹¹⁰ See Ferrell, supra note 26, at 79.

¹¹¹ Model Rules of Prof'l Conduct r. 1.8 cmt. 11.

¹¹² *Id.* at r. 1.5(c) (emphasis added).

¹¹³ Id.

¹¹⁴ *Id.* (The agreement must also state "litigation and other expenses to be deducted from the recovery; and whether such expenses are to be deducted before or after the contingent fee is calculated. The agreement must clearly notify the client of any expenses for which the client will be liable whether or not the client is the prevailing party.").

Although contingency fees are primarily used in litigation, state rules may allow them to be used in the transactional context.¹¹⁵ Under the Model Rules, such fees are only expressly banned in very limited circumstances, as in a domestic relations matter or in a criminal case.¹¹⁶ Several state bar associations have additionally deemed contingency fees impermissible in various non-litigation matters. For example, Ohio disallows contingency fees in non-litigation matters, "either because they are viewed as merely administrative, or because the amount of the fee is deemed excessive, given the near certainty of a successful outcome."¹¹⁷ Iowa has disapproved of contingency fees in workers compensation cases in which the employer or insurer pays benefits voluntarily.¹¹⁸ Both Georgia and Utah have disapproved of the use of such fees for undisputed no-fault insurance benefits.¹¹⁹ Thus, merely because a contingency fee arrangement is not expressly prohibited does not necessarily make it appropriate. In deciding whether a contingency fee is proper, the lawyer must first determine if the fee is reasonable.¹²⁰

If the potential amount of the contingency fee is reasonable, the lawyer still has a fiduciary duty to act in the best interest of the client. Since the lawyer is only paid if the wind lease agreement is successful, the use of a contingency fee may interfere with the attorney's professional objectivity and judgment. If this possibility exists, such a fee is not appropriate.

1. Reasonableness

The reasonableness of the contingency fee is determined at the time the agreement is made.¹²¹ The American Bar Association (ABA) has laid out several additional factors to consider when deciding if a contingency fee is appropriate, including the "likely amount of the fee if the matter is handled on a non-contingent basis" and "the amount of time that is likely to be invested by the lawyer."¹²²

Generally, the effective hourly rates received by lawyers charging contingency fees are higher than the normal hourly rate charges. However, the fact that the contingency fee ultimately results in a far greater fee award than the lawyer would have received if paid on an hourly basis does not automatically make the award unreasonable. For example, the Delaware Supreme Court in Americas Mining Corp. v. Theriault af-

¹¹⁵ Ferrell, supra note 26, at 80–81 (commenting on the California Bus. & Profl Code).

MODEL RULES OF PROF'L CONDUCT r. 1.5(d) ("A lawyer shall not enter into an arrangement for, charge, or collect: (1) any fee in a domestic relations matter, the payment or amount of which is contingent upon the securing of a divorce or upon the amount of alimony or support, or property settlement in lieu thereof; or (2) a contingent fee for representing a defendant in a criminal case.").

¹¹⁷ Ohio St. Bar Ass'n, Informal Advisory Op. 2013-01, at 1, 5 (2013).

¹¹⁸ Iowa Supreme Ct. Bd. of Prof l Ethics & Conduct, Formal Op. 93-14 (1993).

¹¹⁹ Ga. St. Disciplinary Bd., Advisory Op. 37 (1984); Utah St. Bar Ass'n, Ethics Advisory Op. 114 (1992).

¹²⁰ Model Rules of Prof'l Conduct r. 1.5(a).

¹²¹ See Lester Brickman, Contingency Fee Abuses, Ethical Mandates, and the Disciplinary System: The Case Against Case-by-Case Enforcement, 53 WASH. & LEE L. REV. 1339, 1349–53 (1996). This is especially important to note in cases where the recovery was significantly greater than originally anticipated. See, e.g., In re Lawrence, 23 N.E.3d 965 (N.Y. 2014).

¹²² ABA Comm'n on Ethics & Prof'l Responsibility, Formal Op. 94-389, at 1, 5 (1994).

¹²³ Brickman, supra note 121, at 1347.

firmed a 15% contingency fee on a shareholder derivative action suit.¹²⁴ That suit resulted in more than \$304 million in attorneys' fees, breaking down to approximately \$35,000 per hour of work the firm put into the case.¹²⁵ In determining the reasonableness of this fee, the court looked to the "benefit achieved, the difficulty and complexity of the litigation, the effort expended, the risk-taking, [and] the standing and ability of counsel."¹²⁶ Additionally, in *In re Lawrence*, the New York Court of Appeals upheld a 40% contingency fee resulting in \$44 million for the firm—breaking down to approximately \$11,000 per hour of work.¹²⁷

Similarly, contingency fees have been justified by the ABA because the lawyer is taking on considerable risk.¹²⁸ These fees are "designed to—and do—yield higher effective hourly rates than do hourly rate fees to reflect the risks that lawyers bear."¹²⁹ While this may be the case in litigation, especially in the case of personal injury cases, it is not necessarily true in the wind law context. Wind leases often use the market rate when determining the royalties the landowner will receive from the wind developer.¹³⁰ Thus, the additional effort by the attorney may not dramatically increase the amount the client is receiving. However, by using a contingency fee, the attorney would be potentially receiving exponentially larger fees than an attorney charging an hourly rate. Additionally, there is little risk of no recovery since both the wind developer and the landowner benefit from entering into an agreement. Both "the Model Rules and individual state bars have expressly forbidden the use of contingency fees in cases where there is little or no risk of nonpayment of fees."¹³¹

This exception can also be seen in judicial opinions. The same judge who allowed the award of \$340 million in *Americas Mining Corp*. reportedly stated in an unrelated opinion that, "If some plaintiff's lawyer goes to trial and wins a \$10 billion recovery, I will say right now, that's when I am most likely to award 33 percent. I just am. Why? Because that's when the *real risk* has been taken." The reasonableness of contingency fees appears to turn on the amount of risk to the lawyer.

Whether contingency fees could be reasonable in the wind lease negotiations is still an unanswered question. Courts have previously held that "fee payment arrangements whereby the attorney receives a portion of future income to the client do not inherently create an impermissible relationship or entanglement between the attorney and cli-

¹²⁴ Ams. Mining Corp. v. Theriault, 51 A.3d 1213, 1262 (Del. 2012).

¹²⁵ Id. at 1252.

¹²⁶ Id. at 1255.

¹²⁷ In re Lawrence, 23 N.E.3d 965, 975–79 (N.Y. 2014) (reversing the New York Appellate Division decision, which had found the fee "unconscionable.").

¹²⁸ ABA Comm'n on Ethics & Prof'l Responsibility, Formal Op. 94-389, at 1, 5 (1994).

¹²⁹ Lester Brickman, Effective Hourly Rates of Contingency-Fee Lawyers: Competing Data and Non-Competitive Fees, 81 WASH. U. L.Q. 653, 656 (2003).

Windustry, Wind Energy Easements and Leases: Compensation Packages 5 (2009); see also Westel & DeWolf, supra note 1, at 453.

¹³¹ Philip J. Havers, Take the Money and Run: Inherent Ethical Problems of the Contingency Fee and Loser Pays Systems, 14 Notre Dame J. L. Ethics, & Pub. Pol'y 621, 631 (2014).

Max Kennerly, When \$35,000 An Hour In Attorneys' Fees Is Justified In Shareholder Lawsuits, LITIGATION & TRIAL (Dec. 21, 2011), https://www.litigationandtrial.com/2011/12/articles/attorney/contingent-fee/attorneys-fee-shareholder-lawsuits/.

ent,"¹³³ and such arrangements have been employed involving leases in other energy sectors. For example, the West Virginia Supreme Court upheld a contingent fee agreement that provided for the attorneys to receive ongoing payments equal to 30 percent of the increase in coal royalties. ¹³⁴ However, this decision arose out of a settlement after lengthy litigation. ¹³⁵ Additionally, in *Muller v. Karns*, the Indiana court in dicta wrote approvingly of the contingency fee charged by the attorney for negotiating a mining lease. ¹³⁶ In that case, the fee was tied to the amount of royalties that would be received under the lease, and thus no fee would be received if no royalties were paid. ¹³⁷

Additionally, the Ohio State Bar Association published an ethics opinion regarding whether a lawyer may enter into a contingency fee arrangement when negotiating an oil and gas lease on behalf of the client, where the lawyer's fee is a fixed percentage of the royalty the client will potentially receive in the future. The opinion states that, although there is no express prohibition on a contingency fee in such situations, the fee must nevertheless be reasonable. According to the Ohio State Bar Association:

Because a contingent fee consisting of a percentage of a client's royalty can possibly become excessive over time, the lawyer receiving such payments has a continuing obligation to monitor the agreement. In order to avoid an excessive fee, the lawyer and the client might be required to modify or even terminate the agreement at some future time. In order to avoid the possibility that the fee will become excessive over time, the lawyer and client should consider during their discussions whether it is appropriate to place an upper limit on the amount of the total fee.¹⁴⁰

Several other state courts have analyzed the reasonableness of contingency fees that span over a long period of time. For example, in *Holmes v. Loveless*, the Washington Court of Appeals found that, after 30 years of payments, the contingency fee was no longer reasonable. ¹⁴¹ In this case, two retired attorneys sued their former clients, seeking continued enforcement of a contingency fee arrangement giving the attorneys five percent of cash distributions from a successful joint venture in exchange for discounted legal services. ¹⁴² The payments from the joint venture had totaled more than \$380,000 over the course of 30 years, while the legal fees where only valued at \$8,000. ¹⁴³ Additionally, in *People v. Feather*, a Colorado court held that an attorney charged an unreasonable fee to the client because the attorney received a perpetual one-third interest in monthly payments from an oil and gas lease. ¹⁴⁴

¹³³ Schrader Byrd & Companion, P.L.L.C. v. Marks, 648 S.E.2d 8, 13 (W. Va. 2007).

¹³⁴ Id. at 14–15.

¹³⁵ Id. at 12-13.

¹³⁶ Muller v. Karns, 873 N.E.2d 652, 659 n. 1 (Ind. Ct. App. 2007).

¹³⁷ Id.

¹³⁸ Ohio St. Bar Ass'n, Informal Advisory Op. 2013-01, at 1 (2013).

¹³⁹ Id. at 4.

¹⁴⁰ Id.

¹⁴¹ Holmes v. Loveless, 94 P.3d 338, 339 (Wash. Ct. App. 2004).

¹⁴² Id. at 339-40.

¹⁴³ Id.

¹⁴⁴ People v. Feather, 180 P.3d 437, 441 (Colo. 2007). In that case, an attorney represented a woman seeking child support arrearages. After winning a judgment in his client's favor, the

In the case of a wind lease, the attorney could potentially be paid for the entirety of the lease, which generally spans an operational term of 20 or more years with an option for renewal.¹⁴⁵ Although a contingency fee may be reasonable for a certain period of the lease, the reasonableness of ongoing fees must be reevaluated periodically. In the case of a wind lease, after a certain period of time the ongoing contingency fees will likely become unreasonable. However, the client would have to challenge the fees as being unreasonable if the original lease agreement did not provide for cap in the amount of fees to be recovered from the contingency fee, unless, of course, the state bar brought a disciplinary action against the attorney.¹⁴⁶

2. FIDUCIARY DUTY

Generally, a contingency fee is used in a situation where the client has already decided to engage in a transaction. However, in the wind lease context, the client is still deciding whether to engage in the transaction. If the attorney charges a contingency fee, he or she may have a financial incentive to pressure his or her clients into an agreement with terms that are not the most favorable to them since the attorney has a financial interest in the gross amount of any resultant deal. Since the lawyer is only paid if the lease agreement is successful, the use of a contingency fee raises questions about the professional objectivity and judgment of the attorney.¹⁴⁷

Philip J. Havers provides an excellent example of this drawback in his article, *Take the Money and Run: Inherent Ethical Problems of the Contingency Fee and Loser Pays Systems.* In his view,

if the attorney puts in 100 hours of work and receives one-third of a \$200,000 settlement, he has, effectively earned \$800 an hour for his services, but if the attorney had negotiated harder or taken the case to trial where the payout was \$360,000, but he worked 400 hours in preparing the case for trial, his return would only be \$300 per hour. Even accounting for a graduated increase in the attorney's rate of return to fifty percent should the case go to trial, the attorney's hourly rate is equal to \$450 per hour, a significant difference from the \$800 an hour had he settled early. Moreover, this does not account for additional business which the attorney could have taken on as a result of not having to spend the long hours on this one particular case.¹⁴⁸

In *Burrow v*. Arce, the Texas Supreme Court held that the attorneys who had breached their fiduciary duties could be required to forfeit their fees as a remedy. ¹⁴⁹ In

attorney levied against an oil and gas lease owned by the ex-husband. At the sheriff's sale, he entered a winning bid and directed the lessee to forward all royalties to his client, via his own office. For seven years, he kept 1/3 of each royalty payment before distributing 2/3 of each payment to his client. *Id.* at 439–40.

¹⁴⁵ R. Carl Anderson, Negotiating a Fair Wind Energy Facility Lease for a Landowner, SULLOWAY & HOLLIS P.L.L.C., http://www.sulloway.com/negotiating-a-fair-wind-energy-facility-lease-for-a-landowner/ (last visited Apr. 16, 2018).

¹⁴⁶ See Feather, 180 P.3d at 439 (the state initiated the disciplinary proceeding, not the client).

¹⁴⁷ See Ferrell, supra note 26, at 81.

¹⁴⁸ Havers, supra note 131, 630–31.

¹⁴⁹ Burrow v. Arce, 997 S.W.2d 229, 240 (Tex. 1999). Fee forfeiture was is a possible remedy for breach of duties, even where no actual damages resulted from the breach. *Id.*

that case, the attorneys had entered into a contingency fee structure with a group of clients who were suing a chemical plant for injuries and wrongful death after an explosion.¹⁵⁰ The suit settled, with the attorneys receiving over \$60 million in attorneys' fees.¹⁵¹ After the settlement, the clients sued the attorneys, alleging that the attorneys improperly

[1] solicited business through a lay intermediary, [2] failed to fully investigate and assess individual claims, [3] failed to communicate offers received and demands made, [4] entered into an aggregate settlement agreement with Phillips of all plaintiffs' claims without plaintiffs' authority or approval, [5] agreed to limit their law practice by not representing others involved in the same incident, and [6] intimidated and coerced their clients into accepting the settlement.¹⁵²

The district court granted summary judgment for the attorneys because the plaintiffs suffered no actual damages due to the misconduct.¹⁵³ Notably, the Texas Supreme Court reversed summary judgment on that issue, holding that actual damages were not required for clients to seek fee forfeiture after a breach of fiduciary duties.¹⁵⁴ The case is important for wind lawyers considering representation on a contingent fee basis. If the attorney in any way pressures the clients into signing a lease agreement, he or she could be subject to fee forfeiture in addition to sanctions under the Model Rules for a breach of fiduciary duties.

Nevertheless, the benefit of the contingency fee is that the clients are able to make the decision *not* to make an agreement with the wind developer at all without being forced to pay the attorney fees out of pocket.¹⁵⁵ Many clients may not be able to afford the representation without the wind developer's reimbursement after the lease is signed. Thus, having the ability to walk away from the deal—without paying the hefty legal fees—gives clients significantly more bargaining power to get favorable terms in the lease. This is not favorable to the lawyer, who only gets paid if the wind lease negotiations are successful, but this is an inherent risk in taking a case where the fees are contingent on the outcome.

The ABA has addressed contingency fees in several of its formal opinions.¹⁵⁶ For example, in one opinion it pointed out:

A lawyer entering into a contingent fee arrangement complies with the ethical standards set forth in . . . the Model Rules of Professional Conduct . . . if the fee is both appropriate and reasonable and if the client has been fully informed of all appropriate alternative billing arrangements and their implications. ¹⁵⁷

¹⁵⁰ Id. at 232.

¹⁵¹ Id.

¹⁵² Id.

¹⁵³ Id. at 233.

¹⁵⁴ Id. at 232.

It is important to note contingency fees are not necessarily inappropriate just because the client has the ability to pay the attorney's hourly rate. However, even if the client can pay, the contingency fee could be in the client's best interests.

¹⁵⁶ See, e.g., ABA Comm'n on Ethics & Prof'l Responsibility, Formal Op. 94-389, at 1, 5 (1994).

¹⁵⁷ Id. at 13.

Additionally, in Informal Opinion 86-1521, the ABA concluded that,

when there is any doubt whether a contingent fee is consistent with the client's best interest," and the client is able to pay a reasonable fixed fee, the lawyer "must offer the client the opportunity to engage counsel on a reasonable fixed fee basis before entering into a contingent fee arrangement.¹⁵⁸

While contingency fees do have some benefits for the landowners, lawyers must tread very carefully when attempting to use a contingency fee in wind lease industry negotiations. The lawyer must ensure that the fee is reasonable, and that the client is fully informed that there are the other payment options available.

IV. CONCLUSION

Attorneys negotiating wind leases face many potential ethical issues, stemming from the joint representation of landowners and the fees to be charged. As explained in this Note, most potential ethical pitfalls can be avoided through a well-crafted engagement letter. It should inform the landowners of the benefits and risks of the joint representation and give the attorney informed consent to continue the representation despite the inevitable conflicts of interest that might arise. Attorneys should tread carefully when determining their fee structure. Based on the stances of various bar associations and the courts, a contingency fee arrangement for wind lease negotiations could be struck down as an unreasonable fee arrangement. Since contingency fees are not expressly prohibited by the model rules, however, a lawyer may be able to craft an agreement that could be considered reasonable. Though that is a risky enterprise. The lawyer must ensure that the clients are well informed about the implications of such an arrangement and ensure that the fees are similar to the fees the lawyer would receive from charging an hourly rate. If the fees are greater, the lawyer must be able to justify the higher fees by showing he or she undertook a substantial amount of risk. Moreover, the lawyer must be able to show the contingency fee did not create an undue influence and that he or she did not breach any fiduciary duties. Due to the variety of factors weighing against using contingency fee agreements for wind lease negotiations, it is likely not worth the risk. Lawyers are far better off using the traditional hourly fee when negotiating wind leases.

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¹⁵⁸ Id. at 4 (quoting ABA Comm'n on Ethics & Prof'l Responsibility, Informal Op. 86-1521 (1986)).

Conflicts in Groundwater and Mineral Estates in Texas

BY HALEY KING

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I. Introduction

Texas confronts serious potential conflicts in surface use. It has long been held that a mineral estate is dominant to the servient surface estate, and unsevered groundwater was considered part of the surface estate.¹ However, in 2016, the Texas Supreme Court distinguished severed groundwater estates from surface estates in Coyote Lake Ranch, LLC v. City of Lubbock, by holding that a severed groundwater estate is dominant to the surface estate and thus subject to the accommodation doctrine.² As the Court noted, the extension is just another step in the willingness of Texas courts to apply oil and gas law to groundwater issues.³ But the Court did not provide a framework to apply when groundwater and mineral interests conflict. In fact, the Court in Coyote Lake Ranch specifically noted that it would "leave that issue for another day."⁴ Thus, if the development of a severed mineral estate conflicts with the development of a severed groundwater estate, it is unclear which project would prevail.

In this paper, I begin by reviewing the importance of groundwater and the evolution of groundwater law in Texas. I then analyze the potential conflicts between oil-and-gas and groundwater law in the wake of Coyote Lake Ranch, focusing on conflicting development of oil and groundwater and the ability to contract around Texas common law to prevent these conflicts.

¹ Sun Oil Co. v. Whitaker, 483 S.W.2d 808, 810–11 (Tex. 1972).

² Coyote Lake Ranch, LLC v. City of Lubbock, 498 S.W.3d 53, 64 (Tex. 2016).

³ See id. at 63-64; Edwards Aquifer Auth. v. Day, 369 S.W.3d 814, 829-33 (Tex. 2012).

⁴ Coyote Lake Ranch, 498 S.W.3d at 65 n.55.

II. GROUNDWATER IN TEXAS

While scientists regard all water as part of the endless hydrologic cycle, Texas legally divides water into classes with rights and ownership. The most significant class distinction is between surface water and groundwater.⁵ Groundwater is generally found in an aquifer, a permeable underground rock formation that has the ability to "yield significant quantities of water to wells and springs."⁶ The vast majority of Texas's groundwater is held in nine major and twenty-one minor aquifers,⁷ which provide approximately 60 percent of Texas's total water supply today.⁸

Texas has a long history of droughts and water scarcity. Today, these problems are as salient as ever. The Texas Water Development Board's 2017 State Water Plan paints the state's water future in dire terms. The report warns that Texas will suffer a significant economic impact if it fails to implement better water management strategies, and approximately one-third of Texas' municipal water users would have less than half of the water supplies that they require to live and work by 2070.

Many factors lead to water insecurity, but population growth is one of the most significant.¹³ Texas has one of the "fastest growing populations in the country," which is expected to increase by over 70 percent in the next 50 years, putting 51 million Texans in need of secure water resources.¹⁴

Municipalities will face the largest water-demand increase over the next 50 years, and many cities have already started to prepare for this challenge.¹⁵ Texas cities have begun buying groundwater rights to secure water resources for their expanding populations.¹⁶ For example, the El Paso Public Service Board purchased a \$50 million ranch in

⁵ Otis W. Templer, *Water Law*, Tex. St. Hist. Ass'n (June 15, 2010), http://www.tshaonline.org/handbook/online/articles/gyw01.

⁶ Aquifer Basics, U.S. Geological Surv., http://water.usgs.gov/ogw/aquiferbasics/index.html (last updated Dec. 8, 2016).

⁷ Tex. Water Dev. Bd., 2017 State Water Plan 65 (2016).

⁸ Groundwater, Tex. Water Dev. Board, http://www.twdb.texas.gov/groundwater/index.asp (last visited Oct. 10, 2017).

⁹ Tex. Water Dev. Bd., *Drought in Texas*, WATER DATA FOR TEX., https://waterdatafortexas.org/drought (last visited Mar. 2, 2018).

¹⁰ See Tex. Water Dev. Bd., supra note 7, at 11–12.

¹¹ *Id.* ("Texas businesses and workers could lose approximately \$73 billion in income annually in 2020 and \$151 billion annually in 2070.").

¹² Id. at 12.

¹³ The Texas State Water Plan contemplates drought and population growth as factors with the most impact on water demand and insecurity. *Id.* at 30–39, 48–58.

¹⁴ *Id.* at 3, 5.

¹⁵ *Id.* at 6. Municipal demands for water are anticipated to increase from 5.2 million acre-feet per year in 2020 to 8.4 million in 2070. *Id.*

Additionally, private parties, including oil tycoon T. Boone Pickens, have been pumping and marketing their groundwater to cities like San Antonio and El Paso that are running out of water. Joe Nick Patoski, Boone Pickens Wants to Sell You His Water, Tex. Monthly (Aug. 2001), https://www.texasmonthly.com/the-culture/boone-pickens-wants-to-sell-you-his-water.

west Texas with the goal of pumping water from the underlying aquifer to the city of El Paso beginning in 2050.¹⁷

Other cities are going to the extreme of purchasing the surface over already owned groundwater to protect their interests in accessing that water. For example, the City of San Angelo recently purchased the surface rights to a \$44 million dollar ranch that lies above the Hickory Aquifer for the main purpose of shoring up its previously purchased groundwater rights. Groundwater purchases by municipalities in preparation for future water shortages was a major driver of the conflict underlying the recent Texas Supreme Court decision in *Coyote Lake Ranch*, and will likely lead to many more legal issues, some of which I discuss in this paper.

III. EVOLUTION OF TEXAS GROUNDWATER LAW

A. OWNERSHIP OF GROUNDWATER

Groundwater in Texas, like oil and gas, is owned in place and is subject to the rule of capture.²⁰ In 1904, the Texas Supreme Court applied the common law rule of capture in Houston & T.C. Railway Co. v. East, to hold that groundwater, once it is pumped to the surface, is owned by the landowner.²¹ The rule states that "the person who owns the surface may dig therein and apply all that is there found to his own purposes, at his free will and pleasure," regardless of whether that drains his neighbor's well.²² The Court in East discussed only the ownership of water pumped from a well at the surface, and did not discuss ownership of the water in place.²³

After East, the Texas Supreme Court heard multiple cases regarding the rule of capture,²⁴ but did not speak to the ownership of groundwater in place until its decision in Edwards Aquifer Authority v. Day in 2012.²⁵ In Day, the Texas Supreme Court extended ownership in place of oil and gas to hold that groundwater in Texas was owned in place.²⁶ The Court held that "the landowner is regarded as having absolute title in severalty" to the groundwater beneath his land, with the "only qualification [being that] it

¹⁷ Vic Kolenc, El Paso Water to Buy Ranch for \$50 Million, El Paso Times (July 6, 2016), http://www.elpasotimes.com/story/news/2016/07/06/el-paso-water-west-texas-ranch-acquisition/86777450.

Joe Hyde, City of San Angelo Closes on Purchase of Massive \$44 Million Ranch Near Brady, SAN ANGELO LIVE (June 19, 2017), http://sanangelolive.com/news/san-angelo/2017-06-19/city-san-angelo-closes-purchase-massive-44-million-ranch-near-brady.

¹⁹ See Coyote Lake Ranch, LLC v. City of Lubbock, 498 S.W.3d 53, 55–56 (Tex. 2016).

²⁰ Id. at 63.

²¹ Houston & T.C. Ry. Co. v. East, 81 S.W. 279, 280 (Tex. 1904).

²² Id

²³ Id; Edwards Aquifer Auth. v. Day, 369 S.W.3d 814, 826 (Tex. 2012).

²⁴ Sipriano v. Great Spring Waters of Am., Inc., 1 S.W.3d 75, 79 (Tex. 1999); City of Sherman v. Pub. Util. Comm'n, 643 S.W.2d 681, 686 (Tex.1983); Friendswood Dev. Co. v. Smith–Southwest Indus., Inc., 576 S.W.2d 21, 29–30 (Tex. 1978); City of Corpus Christi v. City of Pleasanton, 276 S.W.2d 798, 800–01 (Tex. 1955).

²⁵ Day, 369 S.W.3d at 823–34.

²⁶ Id. (discussing Texas Co. v. Daugherty, 176 S.W. 717, 719 (Tex. 1915)).

must be considered in connection with the law of capture and is subject to police regulations."²⁷ Groundwater is "considered a part of the realty."²⁸

In reaching its conclusion, the *Day* court focused its analysis on the similarities and differences of oil and gas and groundwater, rejecting the Edwards Aquifer Authority's ("Authority") arguments that fundamental differences between the two substances justified different treatment under the law.²⁹ The Court first discussed a similarity between oil and gas and water—the fugacious nature of the substances.³⁰ The Court in *Texas Co. v. Daugherty* in 1915 held that the rule of capture did not preclude a landowner's ownership in place of oil and gas, relying heavily on the "fugitive nature" of the substance, which makes it "incapable of absolute ownership until captured and reduced to possession."³¹ The *Day* court drew a parallel comparison based on *Daugherty*, noting that "[g]roundwater, like oil and gas, often exists in the subterranean reservoirs in which it is fugacious."³² Because of the similarity, the Court concluded that ownership in place of groundwater was a natural extension of the *Daugherty* case.³³

The Court then considered the differences between oil and gas and water. The Authority first focused on the fundamental differences in the regulation of oil and gas and groundwater.³⁴ The focus here was on the incompatible overarching objectives of oil and gas and groundwater law.³⁵ The Authority pointed out that, unlike water, oil and gas is a non-renewable resource, and the "primary goal" of its production is "to deplete an oil and gas reservoir to the maximum extent possible."³⁶ Thus, the Authority contended, the overarching objectives of oil and gas law are to prevent waste and protect the correlative rights among owners.³⁷ By contrast, the objective of groundwater law is "to ensure the long-term availability of this renewable, life-sustaining resource" and ensure that water is "appropriated as is necessary for a recognized beneficial use."³⁸ The Court responded that, "[w]hile there are some differences in the rules governing groundwater and hydrocarbons, at heart both are governed by the same fundamental principle: each represents a shared resource that must be conserved under the Constitution."³⁹ Therefore, the different regulatory objectives did not justify different treatment under the law.⁴⁰

²⁷ Id. at 832–33 (citing Eliff v. Texon Drilling Co., 210 S.W.2d 558, 561 (Tex. 1949)).

²⁸ Id.

²⁹ Id. at 831.

³⁰ *Id.* at 830–31.

³¹ Texas Co. v. Daugherty, 176 S.W. 717, 719 (Tex. 1915).

³² Day, 369 S.W.3d at 829.

³³ Id. at 830.

³⁴ Id. at 832.

Edwards Aquifer Auth. Reply to Response to Petition for Review and Amici Curiae Briefs at 5, Edwards Aquifer Auth. v. Day, 369 S.W.3d 814 (Tex. 2012) (No. 08-0964), 2009 WL 6635364, at *5 [hereinafter Brief for Petitioner]; see also Susana Elena Canseco, Landowners' Rights in Texas Groundwater: How and Why Texas Courts Should Determine Landowners Do Not Own Groundwater in Place, 60 BAYLOR L. REV. 491, 512 (2008) ("Groundwater serves different purposes than oil and gas, and the reasons we regulate the resources differ.").

³⁶ Brief for Petitioner, supra note 35, at 5.

³⁷ Id.

³⁸ Id. at 5-6.

³⁹ Day, 369 S.W.3d at 831.

⁴⁰ Id. at 831.

Next, the Court considered the Authority's argument that oil and gas ownership rights should have no bearing on groundwater rights due to the fundamental differences in "nature, use, and value."⁴¹ First, the Authority pointed out that the nature of the two substances are inherently different, with water being a renewable life-giving resource and oil and gas being a non-renewable commodity.⁴² Second, the uses of the two substances are substantially different. Water is a "life sustaining" resource used for drinking, recreation and agriculture, while oil and gas is a "commodity" for energy and manufacturing.⁴³ Third, the values of the substances are different. The price of a barrel of oil is exponentially more than its equivalent in municipal water; however, a bottle of purified water can be "roughly equivalent to, or in some cases, greater than the price of oil."⁴⁴

However, the *Day* court declined to accept these distinctions and simply responded that not all of the characters of water and oil and gas are fixed, and "[t]o differentiate between [them] in terms of importance to modern life would be difficult.

Drinking water is essential for life, but fuel for heat and power, at least in this society, is also indispensable."⁴⁵ Thus, in refusing to differentiate between groundwater and hydrocarbon ownership, the Texas Supreme Court in *Day* set up the framework for parallel governance of two very different substances.

B. Split Estates and the Accommodation Doctrine

A "split estate" occurs when there are separate owners of the mineral estate and the remainder of the rights in a tract of land.⁴⁶ In Texas, courts recognize that "a landowner may sever the mineral and surface estates and convey them separately,"⁴⁷ thus allowing the creation of a split estate. When the mineral interest is severed, its owner gains the "implied right to use as much of the surface estate as reasonably necessary to produce and remove minerals."⁴⁸ Severance makes the mineral estate "dominant" and the surface estate "servient."⁴⁹ But the benefit is not unlimited. The implied right of surface use is "to be exercised with due regard for the rights of the owner of the servient estate."⁵⁰

Texas law considers groundwater that has not been expressly severed by conveyance or reservation part of the surface estate.⁵¹ Thus, courts have held that the implied right for the severed mineral estate to reasonably use the surface "extends to and includes the right to use water . . . in such amount as may be reasonably necessary to carry out [the

⁴¹ *Id.* at 832.

⁴² Brief for Petitioner, supra note 35, at 5.

⁴³ Day, 369 S.W.3d at 831.

⁴⁴ Id.

⁴⁵ Id.

David Pierce, Professor of Law, Washburn Univ. School of Law, The Common Law of Surface Use to Develop Oil and Gas, Presentation at the Rocky Mountain Mineral Law Foundation's Institute on Oil and Gas Agreements: Surface Use in the 21st Century (May 17, 2017).

⁴⁷ Coyote Lake Ranch, LLC v. City of Lubbock, 498 S.W.3d 53, 60 (Tex. 2016) (citing Cowan v. Hardeman, 26 Tex. 217, 223 (1862)).

⁴⁸ Id. (citing Plainsman Trading Co. v. Crews, 898 S.W.2d 786, 788-89 (Tex. 1995)).

⁴⁹ Id

⁵⁰ Getty Oil Co. v. Jones, 470 S.W.2d 618, 621 (Tex. 1971).

⁵¹ Sun Oil Co. v. Whitaker, 483 S.W.2d 808, 810 (Tex. 1972) (citing Fleming Found. v. Texaco, Inc., 337 S.W.2d 846 (Tex. Civ. App.—Amarillo 1960, writ ref'd n.r.e.)).

mineral owner's] operations."⁵²Whether this applies to severed groundwater, however, is an open question that is beyond the scope of this paper.⁵³

Texas law applies the accommodation doctrine as a matter of fairness to balance the rights of the surface owner and the mineral owner in regards to the use of a surface estate.⁵⁴ The Texas Supreme Court announced the accommodation doctrine in 1971 in Getty Oil Co. v. Jones, holding that:

[W]here there is an existing use by the surface owner which would otherwise be precluded or impaired, and where under the established practices in the industry there are alternatives available to the [mineral owner] whereby the minerals can be recovered, the rules of reasonable usage of the surface may require the adoption of an alternative by the [mineral owner].⁵⁵

The surface owner has the burden to prove that, "under all the circumstances," the use of the surface by the mineral owner is not reasonably necessary.⁵⁶ On rehearing, the Court clarified that the alternatives available to the mineral estate must be considered with "regard to the surface uses otherwise available to the surface owner."⁵⁷

The following year, in 1972, the Court in *Sun Oil v. Whitaker* discussed the doctrine's broad applicability, observing "a definite trend" in the courts "toward conciliation of conflicts and accommodation of both estates." Here, the Court offered further clarification of the accommodation doctrine, holding that the alternative use available to the mineral owner must be on the land in question. The Court explained that a contrary holding requiring the mineral owner to look for alternative methods to produce minerals on other tracts of land in the area "would be in derogation of the dominant estate."

In 2013, in Merriman v. XTO Energy, Inc., the Texas Supreme Court clarified the elements required to obtain relief under the accommodation doctrine.⁶¹ The surface owner has the burden to prove that: (1) the mineral owner's use "completely precludes

⁵² Id.

It is very likely that this open question is a major reason behind the City of San Angelo purchasing the surface rights above its previously purchased groundwater estate in west Texas. See Hyde, supra note 18.

Merriman v. XTO Energy, Inc., 407 S.W.3d 244, 250 (Tex. 2013) ("The issue is one of fairness... balancing the rights of surface and mineral owners to use their respective estates while recognizing and respecting the dominant nature of the mineral estate."); Tarrant Cty. Water Control & Improvement Dist. No. One v. Haupt, Inc., 854 S.W.2d 909, 911 (Tex. 1993) (The doctrine is "a means to balance the rights of the surface owner and the mineral owner in the use of the surface.").

⁵⁵ Getty Oil, 470 S.W.2d at 622 (applying the accommodation doctrine to grant a surface owner's request for injunctive relief against a mineral owner whose pumpjacks were interfering with the surface owner's irrigation system).

⁵⁶ Id. at 623.

⁵⁷ Id. at 627–628 (denying rehearing).

⁵⁸ Sun Oil Co. v. Whitaker, 483 S.W.2d 808, 812 (Tex. 1972).

⁵⁹ Id. at 812.

⁶⁰ Id.

Merriman v. XTO Energy, Inc., 407 S.W.3d 244, 249 (Tex. 2013); see also Emily Rogers & Holly Heinrich, Developments, Water Rights: Coyote Lake Ranch v. City of Lubbock: Texas Supreme Court Applies Oil and Gas Accommodation Doctrine to Groundwater, 47 Tex. Envtl. L.J. 103, 104 (2017).

or substantially impairs" the surface owner's existing surface use; and (2) the surface owner has no "reasonable alternative method . . . by which the existing use can be continued." Once the surface owner carries that burden, the surface owner must further prove that there are "alternative reasonable, customary, and industry-accepted methods available" to the mineral owner that would "allow recovery of the minerals and also allow the surface owner to continue the existing use."

The Merriman court further clarified that the surface owner's alternative method cannot be "merely more inconvenient or less economically beneficial than the existing method." Rather, the surface owner must "prove that the inconvenience or financial burden of continuing the existing use by the alternative method is so great as to make the alternative method unreasonable." 65

Until the Texas Supreme Court's decision in Coyote Lake Ranch in 2016, the law governing split estates had not addressed severed groundwater estates, making this case a major development in split-estate law.⁶⁶

C. Extending the law of Split Estates in Coyote Lake Ranch

The dispute in *Coyote Lake Ranch* arose over an agreement reached in the Texas Panhandle in 1953 during "the most costly and one of the most devastating droughts in 600 years." During this time, the City of Lubbock (Lubbock) purchased the groundwater under the 26,000-acre Coyote Lake Ranch (the Ranch) to help supply its residents with water.⁶⁸

The groundwater deed from the Ranch reserved water for domestic use, ranching operations, oil and gas production, and agricultural irrigation.⁶⁹ Additionally, the deed contained "lengthy, detailed provisions regarding Lubbock's right to use the land."⁷⁰ Most importantly, the deed contained provisions relating to Lubbock's: (1) full rights of ingress and egress on the Ranch to drill water wells; (2) rights to use the Ranch for water production operations; (3) ability to construct facilities on the land; and (4) obligation to pay rent for the surface use occupied, along with damages to the surface caused by the operations.⁷¹

In 2012, Lubbock announced a plan "to increase water-extraction efforts" on the Ranch.⁷² The Ranch objected that the proposed drilling would "injure the surface un-

⁶² Merriman, 407 S.W.3d at 249 (citing Getty Oil, 470 S.W.2d at 627–628 (denying rehearing)).

⁶³ Id. at 249 (citing Tarrant County Water Control & Improvement Dist. No. One v. Haupt, Inc., 854 S.W.2d 909, 911 (Tex. 1993) (extending the accommodation doctrine to apply when a governmental entity is the surface owner)).

⁶⁴ *Id*.

⁶⁵ Id. (citing Getty Oil, 470 S.W.2d at 627–628 (denying rehearing)).

⁶⁶ See Coyote Lake Ranch LLC v. City of Lubbock, 498 S.W.3d 53, 55 (Tex. 2016).

⁶⁷ *Id.* at 55–56 (citing Hearts Bluff Game Ranch, Inc. v. State, 381 S.W.3d 468, 472 (Tex. 2012)).

⁶⁸ Id. at 55.

⁶⁹ Id. at 57.

⁷⁰ Id. at 56.

⁷¹ Id. at 57.

⁷² Id.

necessarily," but Lubbock maintained that this was "well within the broad rights granted by its deed."⁷³

The Ranch sued to enjoin the city from proceeding with its increased water production plan. The district court granted the Ranch a temporary injunction, noting that Lubbock's well plan could be "accomplished through reasonable alternative means that do not unreasonably interfere with the Ranch's current uses." ⁷⁴ Lubbock appealed, arguing the deed expressly gave Lubbock the right to conduct these operations and that the accommodation doctrine did not apply to groundwater owners. ⁷⁵ The Ranch argued that the court's decision in *Edwards Aquifer Authority v. Day* supported the extension of the accommodation doctrine to apply to groundwater interests. ⁷⁶ The court of appeals rejected that argument, reversed and dissolved the temporary injunction. ⁷⁷ In 2015, the Texas Supreme Court granted the Ranch's petition for review. ⁷⁸

The Texas Supreme Court in Coyote Lake Ranch analyzed the case on two grounds: whether the groundwater deed resolved the dispute, and, if not, whether the accommodation doctrine should apply to resolve the dispute. First, the Court held that the deed did not resolve the dispute because it was silent as to the scope of Lubbock's right to access the groundwater.⁷⁹ The Court found that the deed did not answer the key question of whether Lubbock could "do everything necessary or incidental to drilling anywhere," as Lubbock claimed, or "only what is necessary or incidental to fully access the groundwater, as the Ranch argue[d]."80

The Court then turned to the question whether the accommodation doctrine should apply to groundwater interests. First, the Court looked to the "similarities between mineral and groundwater estates, as well as in their conflicts with surface estates," relying heavily on the *Day* court's analysis on the similarities of water and hydrocarbons.⁸¹ Next, the Court rejected Lubbock's assertion that the accommodation doctrine could not apply because the groundwater estate has never been held as dominant, noting that, though they have not used that particular word to describe a severed groundwater estate, "the estate is dominant for the same reason a mineral estate is; it is benefitted by an implied right to the reasonable use of the surface."⁸² Finally, the Court rejected Lubbock's alternative approach, which encouraged the Court to "imply terms . . . into its deed to resolve the dispute."⁸³

⁷³ Id.

⁷⁴ Id. at 58.

⁷⁵ Id.

⁷⁶ *Id.*; see Edwards Aquifer Auth. v. Day, 369 S.W.3d 814, 829–33 (Tex. 2012) (extending ownership in place of oil and gas to hold that groundwater is owned in place).

⁷⁷ City of Lubbock v. Coyote Lake Ranch, LLC, 440 S.W.3d 267, 275 (Tex. App.—Amarillo 2014), aff d, 498 S.W.3d 53 (Tex. 2016) (finding "no authority" to support the Ranch's "position that the accommodation doctrine should apply to the relationship between the owners of the severed groundwater estate and the surface estate.").

⁷⁸ Coyote Lake Ranch, 498 S.W.3d at 58.

⁷⁹ Id. at 59.

⁸⁰ Id.

⁸¹ Id. at 63; see discussion supra Section III.A.

⁸² Id. at 64.

⁸³ Id.

Therefore, the Court held that "the accommodation doctrine applies to resolve conflicts between a severed groundwater estate and the surface estate that are not governed by the express terms of the parties' agreement" and remanded the case for further proceedings.⁸⁴

Justice Boyd, joined by Justice Willet and Justice Lehrmann, wrote a separate concurring opinion agreeing with the extension of the accommodation doctrine in general, but disagreeing with its application in this particular circumstance because the parties' dispute was "governed by the express terms" of the deed, which granted Lubbock its groundwater rights.⁸⁵ According to the concurrence's reading, the deed gave Lubbock the right to drill water wells at any time and location and, therefore, "because the express terms of the parties' agreement address this issue, the accommodation doctrine does not apply and the Ranch cannot rely on the doctrine to require [Lubbock] to adopt an alternative plan for different well sites." On the other hand, the concurrence conceded that the provision of the deed that gave Lubbock the rights "to use all that part of said lands necessary or incidental" to the taking of water left substantial room for disagreement, and thus the accommodation doctrine would apply.⁸⁷

IV. Analyzing Potential Conflicts Between Two Dominant Estates

A. SIMULTANEOUS DEVELOPMENT OF MINERAL AND GROUNDWATER ESTATES

Coyote Lake Ranch leaves many open questions when it comes to managing the conflicting uses of a split-surface estate. The Court has told us that both the mineral estate and the groundwater estate are dominant to the surface estate, but what is the result when the development of the mineral estate and the groundwater estate conflict? The Texas Supreme Court has left this issue open,⁸⁸ which can cause serious uncertainty for owners of both severed groundwater estates and severed mineral estates.

The scenario in which this conflict may arise is easy to imagine. For example, Roy Rancher owns Blackacre Ranch in fee simple absolute. He sells the groundwater estate under the ranch to the nearby city so it can supply its residents with municipal water. Then he sells the mineral estate to Bob Businessman, who leases the mineral rights to Oil Company. After these sales, Blackacre Ranch is a split estate, with the surface, groundwater, and minerals all being owned by different parties.

These different ownerships will likely all come with different surface uses. For example, the rancher wants to run an extensive cattle operation on the land, the oil company wants to conduct a large-scale hydraulic fracturing operation to produce oil and gas from the minerals, and the city wants to drill an extensive network of water wells to produce water.

⁸⁴ Id

⁸⁵ *Id.* at 66–67 (Boyd, J., concurring).

⁸⁶ Id.

⁸⁷ Id.

⁸⁸ Id. at 65 n.55.

Without an express agreement, the solution to these conflicts lies in the common law. The traditional accommodation doctrine provides the legal framework for which the mineral owner, as the dominant estate, can use the surface in due regard to the surface owner.⁸⁹ We also now know that the groundwater owner, as the dominant estate, can use the surface in due regard to the surface owner.⁹⁰ However, it is entirely unclear how, and whether, the accommodation doctrine may apply when the mineral owner's use conflicts with the groundwater owner's use.

The City in Coyote Lake Ranch expressly questioned whether the accommodation doctrine was "workable when both the minerals and the groundwater have been severed from the land." There is little case law to settle any conflicts that may arise over the surface use between a groundwater owner's extensive water development project and a mineral lessee's large-scale hydraulic fracturing operations. Significantly, the questions remain open as to, in the case of a surface-use conflict, whether: (1) the accommodation applies between the two dominant estates; (2) a first in time, first in right-type analysis would control; or (3) the public policy in favor of mineral development would sway a court to favor a mineral estate.

First, courts may choose to apply the accommodation doctrine to one of the dominant estates. Under existing case law, this is almost completely unworkable because it is impossible to know which party would carry the burden of proof. 92 Because both estates are now considered dominant, there is no guidance as to which estate would have to accommodate the other estate's use.

Both estates would be significantly disadvantaged if the court decided that they must carry the burden of proof under the accommodation doctrine. The mineral estate owner has always enjoyed the benefit of not carrying the burden of proof under the accommodation doctrine,⁹³ and the disruption of this precedent could be significant. Modern day oil and gas companies have long benefited from the ability to use the surface estate however they deemed fit to produce minerals, often at the expense of surface owners' use.⁹⁴ Hindering the effect of the dominant estate and forcing the mineral estate owner to accommodate the groundwater estate owner's use could significantly alter the way oil and gas companies do business today.

Conversely, the owners of groundwater estates would be deprived of the benefit of the dominant estate if they were unable to use a sufficient portion of the surface estate to develop their groundwater resources. Making the groundwater owner carry the burden of proof would significantly impair recent efforts of cities that have bought water rights in regions where oil and gas production is widespread.⁹⁵

⁸⁹ See Merriman v. XTO Energy, Inc., 407 S.W.3d 244, 249 (Tex. 2013).

⁹⁰ Coyote Lake Ranch, 498 S.W.3d at 64.

⁹¹ Id. at 65 n.55.

⁹² Merriman, 407 S.W.3d at 249 (providing the three elements which the servient estate holder must prove with regards to the dominant estate holder's use of the surface).

⁹³ See Getty Oil Co. v. Jones, 470 S.W.2d 618, 623 (Tex. 1971).

See Ernest E. Smith, The Growing Demand for Oil and Gas and the Potential Impact Upon Rural Land, 4 Tex. J. Oil Gas & Energy L. 1, 10 (2009) ("An oil company's exercise of its implied rights frequently disrupts existing or potential surface uses.").

⁹⁵ See discussion supra Section II.

If the accommodation doctrine applied in this situation, the analysis may come down to establishing existing use, and the first surface use established will likely hold more clout in a surface use dispute. Some legal scholars have used a pair of appellate court cases to argue that the planned use of the surface may give that estate holder protection similar to "first in time, first in right. In Texas Genco I, the Waco Court of Appeals held that the planned use of a landfill constituted an existing use even though the particular cell was not yet being used, requiring an oil and gas lessee to accommodate the landfill's surface use. The wind farm industry has responded to Texas Genco I and the similar case that followed it, Texas Genco II, by racing to develop the surface thereby establishing existing use with the intent to gain protection under the accommodation doctrine. In the context of mineral and groundwater estates, these cases suggest that the first surface use planned may prevail in the case of concurrent development. Thus, until the Texas Supreme Court further clarifies the accommodation doctrine, it is in the parties' best interest to establish surface-use plans that arguably constitute existing use, and give that party rights under the accommodation doctrine.

Another possibility is that a court may choose not to apply the accommodation doctrine between the two dominant estates. Thus, the mineral estate and the groundwater estate would both be dominant to the surface, with the need to operate in due regard to the surface owner's existing uses. It is uncertain, however, which remedies would apply when there is no "due regard" required between the two dominant estates.

A court could also resolve these disputes outside of the accommodation doctrine entirely. Under Texas law, the general rule is that, "in a contest over rights or interests in property, the party that is first in time is first in right."¹⁰⁰ If this rule were applied in the context of conflicting surface estate use between dominant estates, the first estate severed would take priority over subsequently severed estates. Thus, if the mineral estate were severed before the groundwater estate, it would take priority, and vice versa. Applying the first in time theory in this manner would make it much easier for courts to resolve surface use disputes, but would greatly hinder the value of the subsequently severed estate.

Finally, it is possible that Texas' strong public policy interest in favor of energy development will lead to the mineral estate being favored in the case of a surface use dispute.¹⁰¹ The influence of public policy can be seen in surface use disputes between

⁹⁶ See Getty Oil, 470 S.W.2d at 622; see also Merriman, 407 S.W.3d at 249.

⁹⁷ See Jared Berg, Ending the Game of Chicken: Proposed Solutions to Keep Texas Wind Developers and Mineral Lessees from Ruffling Each Other's Feathers, 11 Tex. J. Oil Gas & Energy L. 143, 152–53 (2016) (citing Tex. Genco., LP v. Valence Operating Co., LP ("Texas Genco I"), 187 S.W.3d 118, 121 (Tex. App.—Waco 2006, pet. denied); and Valence Operating Co. v. Tex. Genco., LP ("Texas Genco II"), 255 S.W.3d 210, 213 (Tex. App.—Waco 2008, no pet.)) ("These cases potentially create a framework by which the accommodation doctrine can be substantially expanded.").

⁹⁸ Texas Genco I, 187 S.W.3d at 120–25; see also Texas Genco II, 255 S.W.3d at 218–19 (applying the same standard to a different cell of the landfill).

⁹⁹ Berg, *supra* note 97, at 156–57.

¹⁰⁰ Aloysius A. Leopold, Texas Practice Series—Land Titles and Title Examination § 12.1 (3d ed. Supp. 2017).

¹⁰¹ Getty Oil, 470 S.W.2d at 622–23 (noting the "public policy of developing our mineral resources").

agricultural lessees and oil and gas lessees, where Texas courts have allowed significant leeway to the oil and gas companies. ¹⁰² This policy presumption in favor of energy development will likely influence Texas courts when deciding cases of conflicting development of mineral and groundwater estates.

Considering the above, it is evident that, by extending the dominance of the mineral estate to the groundwater estate without considering the effects of a conflict between the estates, uncertainty in the law now exists regarding split estates, leaving a new risk for oil and gas and groundwater owners.

B. Contracting Around the Accommodation Doctrine

The Court in Coyote Lake Ranch also made it more difficult to avoid conflicts between mineral and groundwater estates' use of the surface by express agreement. Texas law recognizes the express exception that that accommodation doctrine does not apply where the conflict is "governed by the express terms of the parties' agreement." However, by quickly dismissing the provisions of the deed that included broad rights to use the surface, 104 the Court in Coyote Lake Ranch made it more difficult for future parties to contract around the accommodation doctrine through an express agreement.

As the concurring opinion rightfully points out, a portion of the deed at issue in Coyote Lake Ranch stated that the City had the right to drill water wells "at any time and location." Thus, the accommodation doctrine should not have applied as a commonlaw remedy to determine the location of the wells on the surface because the agreement clearly applied in that situation. If the clear terms "at any time and location" are not unambiguous with respect to water well placement, what is? This undermines a mineral or groundwater owner's ability to obtain broad discretion to use the surface estate.

Going forward, it is unclear how explicit and unambiguous a surface use agreement needs to be to avoid the application of the accommodation doctrine. Critics of the Coyote Lake Ranch case have noted that it "teaches that the ultimate goal of drafting in this area must be to make the language so clear and precise that even the Texas Supreme Court would be too embarrassed to ignore it." Thus, the groundwater and mineral

¹⁰² See John S. Lowe, Representing the Landowner in Oil and Gas Leasing Transactions, 31 OKLA. L. Rev. 257, 263 n.22 (1978); Harper Estes & Douglas Prieto, Contracts as Fences Representing the Agricultural Producer in an Oil and Gas Environment, 73 Tex. B.J. 378, 383–84 (2010). In deciding surface-use conflicts between agricultural leases and mineral leases, Texas courts have "granted damages for negligence and excessive use of the land," but "have not required the [mineral] lessee to pay for injury or damage to the surface that results from the lessee's necessary operations." Estes & Prieto, supra, at 383–384.

¹⁰³ Coyote Lake Ranch, LLC v. City of Lubbock, 498 S.W.3d 53, 64 (Tex. 2016); see Sun Oil Co. v. Whitaker, 483 S.W.2d 808, 810 (Tex. 1972) (denying rehearing); Douglas R. Hafer, Daniel B. Mathis & Logan W. Simmons, A Practical Guide to Operator/Surface-Owner Disputes and the Current State of the Accommodation Doctrine, 17 Tex. Wesleyan L. Rev. 47, 50 (2010) ("Apart from the lease and other contractual agreements that concern a mineral owner's rights to the surface . . . Texas common law is the primary source of a mineral owner's surface-use rights.").

¹⁰⁴ Coyote Lake Ranch, 498 S.W.3d at 59.

¹⁰⁵ See id. at 66–67 (Boyd, J., concurring).

¹⁰⁶ Pierce, supra note 46.

estate owners will likely need detailed agreements that consider a wide range of possible future production plans and clearly detail the agreed-upon surface use in each scenario.

V. Conclusion

The Texas Supreme Court now applies the accommodation doctrine to both groundwater and oil and gas extraction. However, it is uncertain what the Court will do when these activities inevitably conflict. As groundwater resources become more important to the Texas economy, water suppliers will need to take into account potential conflicts with mineral estates when creating local or state water plans. Additionally, mineral estate owners and lessees will need to be conscious of conflicts with groundwater development when considering the risks of mineral development and in negotiating surface use agreements. Eventually, Texas courts or the Legislature may be asked to reconcile these issues and provide a workable framework for applying the accommodation doctrine between groundwater and mineral estates.

Haley King is a graduate of Southern Methodist University's Dedman School of Law. She would like to thank Professor John Lowe for his assistance in the composition of this article.

¹⁰⁷ See Coyote Lake Ranch, 498 S.W.3d at 63-65 (Tex. 2016).

¹⁰⁸ See discussion supra Section II.

THE TRUMP ADMINISTRATION'S HASTY ENVIRONMENTAL ROLLBACKS

By Claire Krebs

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I. Introduction

January 20, 2017, ushered in a sea change at 1600 Pennsylvania Avenue. While some changes made bigger waves than others, the changes to the regulatory state have received less scrutiny by the general public. However, the changes to the regulatory state have been immense and gone to its core.

By sheer numbers, the Trump Administration has withdrawn more regulations than any other recent Administration. In October 2017, the Washington Post cited the U.S. Office of Management and Budget's (OMB) report that 469 rules had been withdrawn,

as compared to 156 by Barack Obama and 181 by George W. Bush.¹ The U.S. Environmental Protection Agency (EPA) has marched in tune to the rollback drum. As the New York Times aptly put it, only four months into the new EPA Administrator's tenure, "[Administrator] Scott Pruitt has moved to undo, delay or otherwise block more than 30 environmental rules, a regulatory rollback larger in scope than any other over so short a time in the agency's 47-year history."² By October 2017, more than fifty environmental rules had been targeted.³

To achieve this unprecedented rollback of regulations, the EPA and the U.S. Bureau of Land Management (BLM), two major agencies overseeing environmental regulation, have deployed a number of novel litigation and administrative "tools from the toolbox" to stay Obama-era regulations—tactics that have the potential to change environmental agencies' powers to their core. If ultimately successful, these tactics broadly increase the EPA's powers, even as the Administration argues for the "deconstruction of the administrative state."

To that end, Part I of this Note discusses the merits and repercussions of the Trump Administration's tactics through the lens of three major rollbacks: the EPA's Clean Power Plan, the BLM's methane flaring rule, and the EPA's 2016 Oil and Gas New Source Performance Standards (NSPS). The rest of Part I of this Note acknowledges the Administration's rationale for rolling back regulations (cost) and discusses two overarching tools the Administration has provided agencies to justify the rollbacks (executive orders and the social cost of greenhouse gases).

Part II of this Note provides background on the statutory hooks that have been and are being used to roll back regulations, be it at the discretion of the agency, as requested by a party, or when litigation is involved. Parts III through V of this Note look at the three specific rollbacks: the Clean Power (Part III of this Note), the BLM Waste Prevention Rule (Part IV of this Note), and the 2016 Oil and Gas NSPS (Part V of this Note).

Glenn Kessler, Has Trump Cut More Regulations than Any President in History?, WASH. POST (Oct. 12, 2017), https://www.washingtonpost.com/news/fact-checker/wp/2017/10/12/has-trump-cut-more-regulations-than-any-president-in-history/.

Coral Davenport, Counseled by Industry, Not Staff, E.P.A. Chief Is Off to a Blazing Start, N.Y. Times (July 1, 2017), https://www.nytimes.com/2017/07/01/us/politics/trump-epa-chief-pruitt-regulations-climate-change.html.

Nadja Popovich et al., 67 Environmental Rules on the Way Out Under Trump, N.Y. TIMES, https://www.nytimes.com/interactive/2017/10/05/climate/trump-environment-rules-reversed.html (last updated Jan. 31, 2018). Not all of these rules were overseen by the EPA. *Id.*

⁴ See Interview by Reuters with E. Scott Pruitt, Adm'r, Envtl. Prot. Agency, in Wash., D.C. (July 11, 2017), https://www.reuters.com/article/us-usa-epa-pruitt-text/transcript-of-reuters-interview-with-epa-administrator-scott-pruitt-idUSKBN19X01Z [hereinafter Pruitt Interview] (describing the EPA's authority—or "tools in the toolbox"—to regulate).

David Z. Morris, Steve Bannon Says Trump's Cabinet Picks Are Intended to 'Deconstruct' Regulation and Agencies, Fortune (Feb. 25, 2017), http://fortune.com/2017/02/25/bannon-trump-cabinet-cpac/; Noah Bierman & Michael M. Memoli, What Will it Mean to Get Rid of the 'Administrative State'? Trump's First Budget Will Offer a Glimpse, L.A. Times (Mar. 16, 2017), http://www.latimes.com/politics/la-na-pol-trump-budget-preview-20170316-story.html.

Each showcases different strategies that the Administration has pursued, some of which may leave the agencies with more power than they had in previous administrations.

Part VI of this Note explores some of the implications of the Administration's strategies and argues that all parties, the judiciary, industry, and environmental groups, should be concerned with the expansion of agencies' powers to roll back regulations. Finally, concluding remarks are presented in Part VI of this Note. While this Note explores the strategies pursued in three specific rollbacks, it does not attempt to address the entire field of rollbacks and does not examine legislative retraction of rules, as through the Congressional Review Act.⁶

A. THE ADMINISTRATION RATIONALIZES THE ROLLBACKS AS CUTTING COSTS FOR INDUSTRY

There is little dispute that the targeting of regulations is a cost-cutting measure, specifically to benefit industry. This goal is apparent everywhere: in media reports, in the Federal Register, and in legal arguments.

Even before the election, candidate Trump vociferously called for cutting regulations to benefit industry: "I would say 70 percent of regulations can go. It's just stopping businesses from growing." Within the first two sentences of his Executive Order (E.O.) Number 13,771 ("Reducing Regulation and Controlling Regulatory Costs"), published not two weeks after inauguration day, the new president hammered home that point: "it is essential to manage the costs associated with the governmental imposition of private expenditures required to comply with Federal regulations." In fact, the order's wording implies that minimizing costs to industry is more essential than minimizing costs to the public.

Dutifully, President Trump's agencies have caught this pro-industry spirit. To achieve this cost-cutting goal, agencies have focused on staying and repealing regulations. The BLM, for example, in its proposed stay of the compliance deadlines in its Obama-era methane rule, reasoned that it "wants to avoid imposing temporary or permanent compliance costs on operators for requirements that may be rescinded or significantly revised in the near future." The agencies' arguments mirror that of states and industry, who complain of the burden of Obama-era rules: "the 27 States that sought to stay the [Clean Power] Plan and the 18 States that defended it submitted declarations

⁶ Congressional Review Act, 5 U.S.C. §§ 801–808 (2012).

Josh Boak, *Trump Is Cutting Regulations*, U.S. NEWS (July 20, 2017, 4:36 a.m.), https://www.usnews.com/news/business/articles/2017-07-20/trump-cutting-hundreds-of-planned-regulations.

⁸ Exec. Order No. 13,771, 82 Fed. Reg. 9339 (Feb. 3, 2017) (emphasis added).

See id. ("It is the policy of the executive branch to be prudent and financially responsible in the expenditure of funds, from both public and private sources. In addition to the management of the direct expenditure of taxpayer dollars through the budgeting process, it is essential to manage the costs associated with the governmental imposition of private expenditures required to comply with Federal regulations.").

Waste Prevention, Production Subject to Royalties, and Resource Conservation, 82 Fed. Reg. 46,458, 46,465 (proposed Oct. 5, 2017) (to be codified at 43 C.F.R. pt. 3160).

explaining that States are already expending significant time and resources to implement the Power Plan."¹¹

B. Executive Orders Provide Direction and Support for the Agencies' Rollbacks

As alluded to above, executive orders have guided the rollback of environmental regulations, specifically E.O. Nos. 13,771 and 13,783. But the EPA and the BLM have not always directly cited or explained the applicability of these orders in their rollbacks.

The Administration's January 30, 2017 E.O. 13,771,"Reducing Regulation and Controlling Regulatory Costs," also known as the 2-for-1 executive order, has been used as grounds for rolling back environmental regulations.¹² The order directs each agency to identify at least two existing regulations for elimination whenever that agency proposes for notice and comment, or otherwise promulgates, a new regulation.¹³ The order further directs the OMB to provide agencies with guidance on implementing the executive order.¹⁴ The latest guidance relevant to rollbacks was issued on September 7, 2017.¹⁵ While the order and the OMB's guidance made no explicit mention of environmental regulations, the order and guidance have been applied to environmental regulations. For example, the Clean Power Plan repeal issued on October 16, 2017, was proposed as a deregulatory action with respect to E.O. 13371,¹⁶ as was the Waste Prevention Rule delay.¹⁷

The Administration's E.O. 13,783 of March 28, 2017, "Promoting Energy Independence and Economic Growth," directed all agencies to review their existing regulations for ones that potentially burden domestic energy development and to suspend, revise, or

Application by 29 States & State Agencies for Immediate Stay of Final Agency Action During Pendency of Petitions for Review at 4, West Virginia v. Envtl. Prot. Agency, 136 S. Ct. 1000 (2016) (mem.) (No. 15A773) [hereinafter Application for CPP Stay].

¹² Exec. Order No. 13,771, 82 Fed. Reg. 9339.

¹³ Id. at 9339.

See Executive Order 13771 - Reducing Regulation and Controlling Regulatory Costs, Envtl. Prot. Agency, https://www.epa.gov/laws-regulations/executive-order-13771-reducing-regulation-and-controlling-regulatory-costs. (last updated Jan. 4, 2018).

As of April 2018, other guidance on Executive Order 13,771 addressed issuing new regulations. See Office of Info. & Regulatory Affairs, Memorandum on Compliance with Section 3(c) of Executive Order 13771, Reducing Regulation and Controlling Regulatory Costs (2018).

Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035, 48,047 (proposed Oct. 16, 2017) (to be codified at 40 C.F.R. pt. 52). Neither recent Federal Register notices regarding the Oil and Gas NSPS referred to Executive Order 13,771. Review of the 2016 Oil and Gas New Source Performance Standards for New, Reconstructed, and Modified Sources, Announcement of Review, 82 Fed. Reg. 16,331 (Apr. 4, 2017); Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, Notice of Reconsideration and Partial Stay, 82 Fed. Reg. 25,730 (June 5, 2017).

Waste Prevention, Production Subject to Royalties, and Resource Conservation, 82 Fed. Reg. 46,458, 46,465 (proposed Oct. 5, 2017) (to be codified at 43 C.F.R. pt. 3160).

¹⁸ Exec. Order No. 13,783, 82 Fed. Reg. 16,093 (Mar. 31, 2017).

rescind those that do so beyond the degree necessary to protect the public interest.¹⁹ The order set a 180-day deadline for agencies to finalize their reviews, unless otherwise extended.²⁰ The order also withdrew previous guidance on the social cost of greenhouse gases—key data used to demonstrate the benefit of Obama-era regulations.²¹ The order specifically targeted the Clean Power Plan for review, as well as the 2016 Oil and Gas NSPS and the Waste Prevention Rule.²²

In compliance with the order's mandate, on October 25, 2017, the EPA issued a report identifying initiatives to pursue under E.O. 13,783, including: (1) comprehensive New Source Review reform; (2) National Ambient Air Quality Standards (NAAQS) reform; and (3) robust evaluations of the employment effects of the EPA regulations.²³ The EPA also targeted additional rules for retraction, including the Oil and Gas Information Collection Request, which would have provided methane emissions data to support decisions on the 2016 Oil and Gas NSPS.²⁴ Again focusing on industry savings, the EPA touted that the withdrawal of the rule saved industry an estimated \$37 million.²⁵

Notably missing from the deregulatory push is a discussion of the benefits of regulation, other than cost savings for industry. For example, in the EPA's review of its regulations under E.O. 13,783, the EPA disparagingly cites the cost of major regulation by its agency from 2004–2015 without also citing the benefits, which *at a minimum* was over three-and-a-half times the cost of regulation.²⁶ The agencies have also ignored benefits in some of their legal arguments, which has not gone unnoticed; in overturning the BLM's original stay of methane rule compliance deadlines, the California District Court cited in its reasoning the BLM's "complete failure to consider the foregone benefits of compliance."²⁷

C. A Lower Social Cost of Greenhouse Gases Also Provides Support for the Rollbacks

Another overarching tool the Administration has given agencies to support the roll-backs of regulations comes from recalculating the social cost of greenhouse gases. An esoteric metric, the social cost of greenhouse gases, like methane and carbon, undergirds many environmental regulations; according to a study by Yale University economist

¹⁹ Id. at 16,093–94.

²⁰ Id. at 16,094.

²¹ Id. at 16,095–96.

²² Id.

Press Release, Envtl. Prot. Agency, EPA Releases Energy Independence Report (Oct. 25, 2017), https://www.epa.gov/newsreleases/epa-releases-energy-independence-report.

²⁴ Envil. Prot. Agency, Final Report on Review of Agency Actions that Potentially Burden the Safe, Efficient Development of Domestic Energy Resources Under Executive Order 13783 at 11 (2017).

²⁵ Id

Compare id. ("[T]he Office of Management and Budget estimated that the total annual cost of EPA regulations from October 1, 2004 through September 30, 2014 stood between \$37.6 and \$45.4 billion (2010\$)."), with Office of Mgmt. & Budget, 2015 Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act at 9 tbl.1-1 (2015) (estimating benefits to be between \$160.2 and \$787.7 billion (2010\$)).

²⁷ California v. Bureau of Land Mgmt., 277 F. Supp. 3d 1106, 1124–26 (N.D. Cal. 2017).

William Nordhaus: "[t]he most important single economic concept in the economics of climate change is the social cost of carbon (SCC). At present, regulations with more than \$1 trillion of benefits have been written for the United States that use the SCC in their economic analysis."²⁸

Acknowledging that it cannot continue to rely on past cost benefit analyses to defend its rollbacks, the Administration recently released its revised estimates of the social costs of greenhouse gases to replace the reports withdrawn in E.O. 13,783.²⁹

By looking only at the domestic impact of greenhouse gases and tweaking other assumptions, the Administration cut the estimated SCC from \$36/ton to \$1-\$6/ton and the social cost of methane from \$1,400/metric ton to \$55/metric ton.³⁰ The Administration released these changes in proposed alterations to the Clean Power Plan and the Oil and Gas NSPS.³¹ These changes have become the factual building blocks supporting the rollback of many regulations, and at least one court has indicated that it is within an agency's discretion to ignore the global cost of greenhouse gases, like methane, in attempting to justify a rollback.³²

II. Overview of Ways Agencies Roll Back Regulations

Given that the Administration is rolling back regulations that were promulgated under a diversity of statutes, the Administration's legal team has had to pursue a diversity of strategies to stay or roll back the rules. Whether the rule is in on-going litigation or not also affects the Administration's available legal strategies.

A. ACTIVE LITIGATION LIMITS AN AGENCY'S OPTIONS

As the Federal Circuit has pointed out, there are generally five positions an agency may take if it seeks to continue with litigation over its actions:³³ (1) defend the decision on previously articulated grounds; (2) defend the decision on new grounds; (3) seek a voluntary remand to reconsider in light of intervening, outside events; (4) seek a voluntary remand to reconsider without intervening, outside events; (5) admit error and seek a

Chris Mooney, New EPA Document Reveals Sharply Lower Estimate of the Cost of Climate Change, Wash. Post (Oct. 11, 2017), https://www.washingtonpost.com/news/energy-environment/wp/2017/10/11/new-epa-document-reveals-sharply-lower-estimate-of-the-cost-of-climate-change/.

Niina Heikkinen, EPA Revises the Social Cost of a Potent Greenhouse Gas, Sci. Am. (Nov. 20, 2017), https://www.scientificamerican.com/article/epa-revises-the-social-cost-of-a-potent-greenhouse-gas/.

³⁰ Id.

³¹ Id

³² California v. Bureau of Land Mgmt., 286 F. Supp. 3d 1054, 1069–70 (N.D. Cal. 2018) (finding that the BLM had provided a factual basis for omitting certain global costs of methane in its justification for the suspension of the Waste Prevention Rule, and had demonstrated that the change was within the agency's discretion).

Another option would be to settle, but the Administration has proven hesitant to pursue this option.

voluntary remand to reconsider.³⁴ The Trump Administration has shown little interest in defending environmental rules, positions (1) and (2). Position (5) could limit the Administration's flexibility in rewriting the rule, and also is an approach that has been rejected when used for strategic purposes, such as rolling back regulations.³⁵ Positions (3) and (4) are more attractive, especially if the agency could convince the court to vacate the rule along with the remand by granting voluntary remand with vacatur.

Voluntary remands have been in the administrative toolkit for decades,³⁶ but only recently have they received renewed scrutiny,³⁷ especially as to their appropriateness when paired with a vacatur request.³⁸ While some courts continue to grant vacatur alongside voluntary remands,³⁹ other courts and commenters recognize that vacatur impermissibly "allow[s] the Federal defendants to do what they cannot do under the [Administrative Procedure Act (APA)], repeal a rule without public notice and comment, without judicial consideration of the merits."⁴⁰ Perhaps fearing that a court would not be willing to vacate a rule on voluntary remand because of APA concerns, the Administration has shied away from this method of achieving rollbacks.

And remand without vacatur by itself would not accomplish the ultimate goal of repeal. Instead, remand without vacatur would cause the original regulation to stay on the books while the agency reviewed it and continue to subject the regulated community to the rule's original deadlines. So, any voluntary remand granted without vacatur typically requires the agency to take further action to postpone the effectiveness of the rule.

But there is one other option that the Federal Circuit did not address—an abeyance of the litigation.⁴¹ An abeyance pauses litigation with the reviewing court retaining ju-

When an agency action is reviewed by the courts, in general the agency may take one of five positions . . . First, it may choose to defend the agency's decision on the grounds previously articulated by the agency. Second, it may seek to defend the agency's decision on grounds not previously articulated by the agency. Third, the agency may seek a remand to reconsider its decision because of intervening events outside of the agency's control. Fourth, even in the absence of intervening events, the agency may request a remand, without confessing error, to reconsider its previous position. [Fifth] . . . the agency may request a remand because it believes that its original decision was incorrect on the merits and it wishes to change the result.

Id.

- 35 See Alexander L. Merritt, Note, Confession of Error by Administrative Agencies, 67 Wash & Lee L. Rev. 1197, 1200-05 (2010) (describing the judiciary's rejection of the Obama Administration's attempt to roll back the Stream Buffer Zone Rule by confessing error in litigation).
- Joshua Revesz, Note, Voluntary Remands: A Critical Reassessment, 70 ADMIN. L. REV., at 23 (forthcoming 2018), https://ssrn.com/abstract=2963384
- 37 Id. at 4–5.
- 38 Id. at 34–36.
- 39 Id. at 35, 35 n.200.
- 40 *Id.* at 35, 35 n.199 (quoting Nat'l Parks Conservation Ass'n v. Salazar, 660 F. Supp. 2d 3, 5 (D.D.C. 2009) (declining to grant voluntary remand and vacatur of the Stream Buffer Zone Rule)).
- 41 *Id.* at 53.

³⁴ SKF USA, Inc. v. United States, 254 F.3d 1022, 1027-29 (Fed. Cir. 2001) (emphasis omitted).

risdiction.⁴² While an abeyance does not alone stay a rule, the reviewing court retains jurisdiction, which then could allow an agency to leverage other statutes to postpone effective dates, or seek other relief akin to a stay.⁴³ At the very least, the agency preserves the forum for review and no longer incurs litigation costs to defend an unwanted rule. Additionally, an abeyance does not commit the agency to rewrite the rule. However, to guard against agency inaction, some courts require that the agency file periodic progress reports.⁴⁴ The retention yet postponement of judicial review—and its subsequent potential benefits—is a key difference from voluntary remand, and may be one reason why this Administration has relied heavily on abeyances, as opposed to requesting voluntary remands (with or without vacatur).⁴⁵ With litigation concerns diminished, the Administration has sought to leverage the power of its administrative agencies, either through enabling statutes or the APA, to effect a full stay of the rules.

B. Once Litigation is in Abeyance, an Agency is Less Limited, But It is Still Bound by Its Own Statutes and the Administrative Procedures Act

Most administrative processes to rollback rules leave the rules in place for the time being: the D.C. Circuit has held that "an agency issuing a legislative rule is itself bound by the rule until that rule is amended or revoked."⁴⁶ When an agency wishes to reconsider or repeal a rule, it typically must follow the appropriate rulemaking procedures and may not simply issue an order announcing the change.⁴⁷ Normally, the appropriate rulemaking procedures include the APA notice and comment requirements, unless some exception applies.⁴⁸

For example, an agency would not need to conduct notice and comment if its proposed alteration of the rule could be legitimately characterized as a merely permissible

This is different from a judicial stay of a rule, although as will be discussed, this Administration has combined a judicial stay with an abeyance to postpone compliance costs while in the process of a rollback. See infra Part III (discussing the Supreme Court's stay of the Clean Power Plan). This is also different from extending briefing deadlines, or other dilatory tactics, which the BLM had initially pursed in the Waste Reduction Rule rollback. See infra Part IV.

⁴³ See infra Part II.C.3 (discussing APA section 705).

⁴⁴ E.g., Am. Petroleum Inst. v. Envtl. Prot. Agency, No. 13-1108 (D.C. Cir. May 18, 2017) (per curiam) (order granting abeyance).

For example, the EPA has pursued abeyances in litigation regarding the Clean Power Plan, effluent limitation guidelines, coal ash rule, 2016 oil and gas NSPS, carbon dioxide NSPS for power plants, ozone NAAQs, and truck greenhouse gas emission standards. Trump Administration Response to Key Obama Environmental Rules Being Challenged in Court, Bracewell (October 6, 2017) https://www.bracewell.com/sites/default/files/knowledge-center/10-6-2017DM-%235547384-v3-Slides_-Court_Challenges_to_Rules_Affected_by_Trump_Administration.PPT.pdf.

Nat'l Family Planning & Reprod. Health Ass'n v. Sullivan, 979 F.2d 227, 234 (D.C. Cir. 1992) (discussing a rule issued by the Department of Health and Human Services).

⁴⁷ Util. Solid Waste Activities Grp. v. Envtl. Prot. Agency, 236 F.3d 749, 752 (D.C. Cir. 2001).

⁴⁸ Nat'l Family Planning & Reproductive Health Ass'n, 979 F.2d at 234.

interpretation of the regulation, consistent with its language and original purpose.⁴⁹ An agency might also rely on the good cause exception in section 553(b)(B) of the APA.⁵⁰ In *Utility Solid Waste Activity Group v. EPA*, the D.C. Circuit noted that an agency could depart from the normal requirements when it makes a good cause finding that notice and public procedure are impracticable, unnecessary, or contrary to the public interest.⁵¹ For this to be effective, an agency must incorporate the finding and a brief statement of reasoning in the issued rules.⁵² But circumstances in which notice and comment have been waived are few,⁵³ and therefore promulgation of a repeal through the APA section 553's good cause exception is unlikely to achieve the main goal of repealing or staying the current rule. In addition, the APA section 553's use to modify public health regulations has previously been overturned by courts.⁵⁴

C. RECENTLY, AGENCIES HAVE ATTEMPTED TO USE THREE SPECIFIC STATUTES TO STAY RULES OR EXTEND THEIR EFFECTIVE DATES

The Administration has therefore looked to administratively stay each rule or extend the effective dates while it complies with the notice-and-comment requirements to repeal and replace its targeted rules. The EPA has attempted to use two specific sections in the Clean Air Act (CAA) to authorize a stay of clean air rules: (1) the general grant of powers in CAA section 301; and (2) the reconsideration process in CAA section 307(d)(7)(B). The EPA has cited these sections in its rollback of the Oil and Gas New Source Performance Standards.⁵⁵ Section 705 of the APA has also been used when "justice so requires" to postpone the effective date of a rule. This Administration has relied on the APA section 705 to justify its suspension of the Waste Prevention Rule.⁵⁶ And one court also cited APA section 705 to justify the stay of certain provisions of that rule.⁵⁷

CAA Section 301: Available at the Whim of the Agency as an Implied Power?

For the Oil and Gas NSPS, the EPA has proposed that CAA section 301(a) gives it implied broad authority to stay a rule, or in the alternative, "phase-in" compliance. In relevant part, CAA section 301(a) states: "The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter." While this section is now widely understood to be a grant of legislative rulemaking powers,⁵⁸

⁴⁹ Id.

^{50 5} U.S.C. § 553(b)(B) (2012).

⁵¹ Util. Solid Waste Activities Grp., 236 F.3d at 753 (describing and quoting APA section 553(b)(B)).

⁵² Id.

⁵³ *Id.* at 754 (discussing precedent that APA section 553(b) should be "narrowly construed and only reluctantly countenanced," and not simply be an agency's "escape clause" from inconvenient regulation).

⁵⁴ See infra Part VI.

⁵⁵ See infra Part V.

⁵⁶ See infra Part IV.

⁵⁷ See infra Part IV.

⁵⁸ See Thomas W. Merrill & Kathryn Tongue Watts, Agency Rules with the Force of Law: The Original Convention, 116 HARV. L. REV. 467, 587–90 (2002).

before the 1990 Amendments to the CAA the legislative history of section 301(a) suggests that some representatives intended that the grant of powers to the EPA be quite limited.⁵⁹ A number of cases have explored the limits of CAA section 301(a)'s grant of powers.⁶⁰ Few cases have commented on the extent of the EPA's powers under CAA section 301 to alter the rulemaking procedure, but the D.C. Circuit has limited the EPA's use of CAA section 301(a) for broad rule making powers: "Such a provision does not provide the Administrator with *carte blanche* authority to promulgate any rules, on any matter relating to the Clean Air Act, in any manner that the Administrator wishes."

As the struggle over the Oil & Gas NSPS rollback illustrates, the extent of CAA section 301 powers will likely depend on whether a court determines that other specific provisions of the CAA would conflict with allowing a stay of the already-effective rule. ⁶² Supporters of the original NSPS rule have advanced both CAA sections 111(b)(1)(B) and 307(d)(7)(B) as such conflicting provisions, but in the end a court is likely to give deference to the EPA's interpretation of its powers as the EPA is interpreting its own statute.

CAA Section 307(D)(7)(B): Available to Stay a Rule at the Behest of a Party or the Agency?

The Clean Air Act authorizes the EPA to stay a rule that has been petitioned for reconsideration "for a period not to exceed three months." Under CAA section 307(d)(7)(B), a petitioner's objection should lead to reconsideration if: (1) it was impracticable to raise such an objection at the time of the rule making; and (2) the objection is of central relevance to the outcome of the rule. Further,

if [a] person raising an objection [to a rule] can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. . . . Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months. 64

Both proponents and opponents of the rollbacks have cited CAA section 307(d)(7)(B) for guidance on the appropriateness of the EPA's stays that are pursued

⁵⁹ Id.

⁶⁰ E.g. Nat. Res. Def. Council v. Reilly, 976 F.2d 36, 41 (D.C. Cir. 1992) (discussing whether the general grant of rulemaking power embodied in section 301 trumped specific provisions of the Clean Air Act).

⁶¹ Citizens to Save Spencer Cty. v. Envtl. Prot. Agency, 600 F.2d 844, 873 (D.C. Cir. 1979).

⁶² See infra Part V.2.

^{63 42} U.S.C. § 7607(d)(7)(B) (2012).

⁶⁴ Id.

outside the context of reconsiderations.⁶⁵ Proponents have argued that CAA section 307 demonstrates that the EPA has the power to issue stays; opponents have argued that this power is limited to this single section where the power is expressly granted.⁶⁶ The D.C. Circuit, weighing in on the Oil and Gas NSPS, has limited the use of CAA section 307 to mandatory reconsiderations of rules, not voluntarily reconsiderations by agencies. And unlike an argument under APA section 705, the EPA's interpretation of CAA section 307(d)(7)(B) will likely receive deference by a court, since the CAA is one of the statutes the EPA is charged with interpreting.⁶⁷

3. APA Section 705: Available to Postpone Compliance Dates in the Face of Litigation Without Analyzing the Preliminary Injunction Factors?

Administrative Procedures Act section 705 relief is only available when the challenged agency action is pending judicial review and describes both the powers of an agency and the powers of a reviewing court. It applies to any agency governed by the APA and so has been applied beyond the scope of environmental law.⁶⁸ The full text of APA section 705 is as follows:

When an agency finds that justice so requires, it may postpone the effective date of action taken by it, pending judicial review. On such conditions as may be required and to the extent necessary to prevent irreparable injury, the reviewing court . . . may issue all necessary and appropriate process to postpone the effective date of an agency action or to preserve status or rights pending conclusion of the review proceedings.⁶⁹

In other words, a successful application of APA section 705 would allow an agency to extend the effective date of a rule.⁷⁰ APA section 705 allows a court to either extend effective dates, or act to preserve "status or rights." Reviewing courts are guided by APA section 706 as to the scope of their review,⁷¹ and often use the four-factor preliminary injunction test before granting relief under APA section 705.⁷² But as compared to the

⁶⁵ E.g. Supplemental Brief of Intervenors at 4–5, 5 n.5, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Aug. 8, 2017) (per curiam) (order granting abeyance) (citing CAA section 307 as a power that is limited to reconsideration and not applicable to the Clean Power Plan review).

⁶⁶ Id.

⁶⁷ Chevron v. Nat. Res. Def. Council, 467 U.S. 837, 838 (1984).

However, Congress sometimes picks and chooses which sections of the APA apply to a statute, as demonstrated by the Clean Air Act expressly providing that APA sections 553–557 and 706 do not apply in some rulemakings. 42 U.S.C. § 7607(d)(1) (2012).

^{69 5} U.S.C. § 705 (2012).

⁷⁰ Thien Chau, Dilatory Tactics: Does 'Effective Date' Mean Effective Date? Geo. Envtl. L. Rev., Feb. 28, 2018, https://gelr.org/2018/02/28/dilatory-tactics-does-effective-date-mean-effective-date/.

^{71 5} U.S.C. § 706.

A four-factor test is well established for analyzing the merits of a judicial stay: (1) likelihood that the party requesting the stay will prevail on the merits; (2) likelihood that the moving party will be irreparably harmed absent the stay; (3) the prospect that others will be harmed by the stay; and (4) the public interest in granting the stay. Wash. Metro. Area Transit Comm'n v. Holiday Tours, Inc., 559 F.2d 841, 843 (D.C. Cir. 1977) (citing Va. Petroleum

analysis conducted by a *reviewing court*, there has been much less development of how and when an *agency* may invoke APA section 705.⁷³ For example, there has been disagreement as to whether an agency would need to apply the injunction test, or simply find that "justice so requires."⁷⁴

The Administration's rollbacks have reignited that debate,⁷⁵ as well as probed whether compliance dates—as well as effective dates—could be extended.⁷⁶ Indeed, APA section 705 has been cited as grounds for a number of administrative stays, including in two of the rules cited in this paper, the Clean Power Plan and the Waste Prevention Rule.⁷⁷ And as will be discussed in Part VI, an agency's invocation of APA section 705 could become particularly troublesome when coupled with a judicial abeyance.

III. THE CLEAN POWER PLAN: HOW THE EPA USED ABEYANCE TO MAINTAIN A JUDICIAL STAY OF THE RULE DURING THE ROLLBACK

The first rule examined presents some interesting twists on how active litigation affects an agency's options and shows how an agency preserved a judicial stay without resorting to its statutory toolkit. The EPA had already briefed its support of the Clean Power Plan before the presidential transition. Then, the Supreme Court took the unu-

Jobbers Ass'n v. Fed. Power Comm'n, 259 F.2d 921 (D.C. Cir. 1958)). And courts have noted that this standard is appropriate when determining if relief should be granted under section 705. E.g. Sierra Club v. Jackson, 833 F. Supp. 2d 11, 30 (D.D.C. 2012).

Compare Sierra Club, 833 F.Supp.2d at 30 with Virginia Petroleum Jobbers Ass'n, 259 F.2d at 925 (D.C. Cir. 1958) (demonstrating that the first major case to squarely address the standard for stay at an agency level was in 2012, while the standard for judicial stays is over a half-century old).

See Sierra Club, 833 F. Supp. 2d at 30–34 (rejecting the EPA's argument that it did not need to conduct the preliminary injunction test when staying a rule under APA section 705). The EPA argued that it only needed to find that "justice" required a stay. *Id.* at 30. The court rejected this contention, interpreting the legislative history of APA section 705 to conclude, "the standard for the issuance of a stay pending judicial review is the same whether a request is made to an agency or to a court." *Id.* at 31. The court also looked with disfavor on the EPA's lack of justification for this altered position in light of the numerous prior occasions that the EPA had considered the four-factor test when granting a stay under APA section 705. *Id.* at 33.

In litigation involving the Waste Reduction Rule, one district court questioned if a *review-ing court* even need consider the preliminary injunction test. Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, slip op. at 9 n.10 (D. Wyo. Apr. 4, 2018) (order staying implementation of rule provisions). It is unclear if this interpretation will be upheld, as the court relies on another district court's discussion of an *agency's* obligations under section 705, not those of a *court*.

⁷⁶ See infra Part IV.

While the Supreme Court did not cite APA section 705 as grounds for the stay issued for the Clean Power Plan, petitioners had offered APA section 705 as grounds for the stay, or in the alternative, a writ of mandamus under 28 U.S.C. § 1651(a). Application for CPP Stay, *supra* note 11, at 13 n.7.

sual step of staying the rule "pending disposition" of the case in the D.C. Circuit.⁷⁸ So after the transition, the Trump Administration was faced with a rule that was no longer creating compliance costs for industry (good), but only as long as litigation continued—litigation where the agency was expected to continue *defending* the rule. The following shows how, by requesting an abeyance as opposed to a remand, the EPA was able to maintain the stay, all while working on the rule's repeal.

A. Background on the Clean Power Plan

Published in the Federal Register as: "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," the Clean Power Plan was the first time the EPA attempted to regulate carbon dioxide emissions from new and existing large power plants. The rule had an effective date of December 22, 2015. The Clean Power Plan specifically targeted two subcategories of sources: fossil fuel-filed electric steam generating units and stationary combustion turbines, as such fossil fuel plants "are by far the largest domestic stationary source of emissions of CO₂." The plan had three main elements: (1) performance rates for the two subcategories of sources; (2) state-specific CO₂ emissions goals; and (3) guidelines for the development, submittal, and implementations of states plans implementing the rule.

1. Legal Basis for the Original Rule

The requirement to regulate carbon dioxide originates in the Supreme Court's holding in Massachusetts v. EPA.⁸³ There, the Court found that greenhouse gases like carbon dioxide and methane are air pollutants covered by the Clean Air Act.⁸⁴ The Court held that the EPA was therefore required to determine whether these greenhouse gases "cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare."⁸⁵ In December 2009, after the appropriate rulemaking process, the EPA finalized its finding that six greenhouse gases, including carbon dioxide and methane, threaten the public health and public welfare of current and future generations.⁸⁶ This endangerment finding triggered the EPA's responsibility to regulate carbon dioxide for mobile sources under CAA section 202 and led to the regulation of some stationary sources under CAA section 111.⁸⁷

⁷⁸ Id.

According the Clean Power Plan, "CO₂ is the primary GHG [greenhouse gas] pollutant, accounting for nearly three-quarters of global GHG emissions and 82 percent of U.S. GHG emissions." Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,677 (Oct. 23, 2015).

⁸⁰ Id. at 64,664.

⁸¹ Id. at 64,663.

⁸² Id. at 64,666.

⁸³ Massachusetts v. Envtl. Prot. Agency, 549 U.S. 497 (2007).

⁸⁴ Id. at 529 (with respect to the automotive context, under CAA section 202(a)).

⁸⁵ *Id.* at 532–35 (quoting CAA section 202(a), which uses the same language as section 111(b)(1)(A)).

Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009).

⁸⁷ See Util. Air Regulatory Grp. v. Envtl. Prot. Agency, 134 S. Ct. 2427, 2440–42 (2014) (indicating that the EPA has discretion to regulate greenhouse gases outside of the mobile

As a regulation of existing sources, the Clean Power Plan's statutory basis was CAA section 111(d).88 The EPA determined the best system of emissions reduction (BSER) and then required the majority of states to develop and implement state implementation plans to set emissions standards for the affected sources.89

The EPA determined that the BSER consisted of three building blocks: (1) improving the efficiency of existing coal-fired power plants; (2) substituting natural gas for coal as fuel in power plants; and (3) substituting renewable sources for existing coal sources.⁹⁰

Most commentators agree that, in articulating the legal basis for the Clean Power Plan, the EPA interpreted its authority under CAA section 111 much more broadly than ever before. As such, the plan is especially vulnerable to attack on its legal basis. In particular, building blocks 2 and 3, which would require entities to shift electric generation away from fossil fuel-fired plants to other sources of energy, were seen as unprecedented extensions of the EPA's authority. 22

2. Factual Basis for the Original Rule

The factual basis for the Clean Power plan rested in a large part on the social cost of greenhouse gases and the public health co-benefits expected from the reduction of other pollutants, like sulfur dioxide and nitrogen oxides.⁹³ The EPA estimated net benefits of

- vehicle context, as long as the EPA is adopting "a reasonable construction of the statute"). In the past, industry has argued that the EPA is obliged to make a separate endangerment finding for each section of the statute that requires such a finding, but that argument has not surfaced in the CAA rollbacks examined here.
- Concurrent to the publication of the Clean Power Plan, the EPA published final NSPS for CO₂ emissions under section 111(b), as well as the proposed federal plan and model rules. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,682 (Oct. 23, 2015). Once the EPA established standards of performance for new or modified sources under CAA section 111(b), CAA section 111(d) "then requires regulation of existing sources. Am. Elec. Power v. Connecticut, 564 U.S. 410, 424 (2011). Only five regulations have been based on CAA section 111(d) in the history of the Clean Air Act. Application for CPP Stay, *supra* note 11, at 6.
- Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. at 64,664. Vermont and D.C., having no affected sources, were not required to submit plans. *Id.* The EPA did not apply the emissions guidelines to Alaska, Hawaii, Guam, and Puerto Rico, which were not held to the state plan submittal timeline as set in the Clean Power Plan. *Id.*
- 90 Fact Sheet: Overview of the Clean Power Plan, ENVTL. PROT. AGENCY, https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html (last updated May 9, 2017) [hereinafter CPP Fact Sheet].
- 91 Id.; see also David Roberts, Obama's Carbon Rule Hangs on this One Legal Question, Grist (Feb. 9, 2015), https://grist.org/climate-energy/obamas-carbon-rule-hangs-on-this-one-legal-question/.
- Application for CPP Stay, *supra* note 11, at 2. The generation-shifting required by building blocks 2 and 3 were challenge in the original stay petition. *Id.* at 2–3.
- 93 CPP Fact Sheet, supra note 90.

\$26-\$45 billion in 2030.94 The Trump Administration has challenged these numbers by recasting both the social and public health costs.95

B. LITIGATION BEGINNING IN THE OBAMA ADMINISTRATION RESULTS IN A JUDICIAL STAY OF THE PLAN

Litigation in the D.C. Circuit began shortly after the publication of the rule on October 23, 2015.96 On February 9, 2016, at the request of certain industries, the Supreme Court stayed the effectiveness of the rule while litigation over the rule's legitimacy ran its course in the D.C. Circuit.97 While the stay order is silent on the matter, the Court may have been persuaded by the petitioners' insistence that the Court consider the history of *Michigan v. EPA*, in which the Court did not stay regulations that it later would hold to be invalid.98 The question in that case was whether the EPA had to consider costs when issuing an initial finding that it was "appropriate and necessary" to regulate.99 In particular, the EPA argued that it did not need to consider costs when determining if power plants should be regulated.100 Because the *Michigan v. EPA* rules were in effect during the course of the litigation, the regulated community was forced to comply—to the tune of \$10 billion a year, according to the EPA estimates.101 Indeed,

Oarbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. at 64,679.

Press Release, Envtl. Prot. Agency, EPA Takes Another Step to Advance President Trump's America First Strategy, Proposes Repeal of "Clean Power Plan" (Oct. 10, 2017), https://www.epa.gov/newsreleases/epa-takes-another-step-advance-president-trumps-america-first-strategy-proposes-repeal (discussing the domestic versus global climate benefits, which drive the social cost of greenhouse gases, and "co-benefits," which are the health benefits from reductions of non-greenhouse gas pollutants).

⁹⁶ See Linda Tsang & Alexandra M. Wyatt, Cong. Research Serv., R44480, Clean Power Plan: Legal Background and Pending Litigation in West Virginia v. EPA 10 (2017).

West Virginia v. Envtl. Prot. Agency, 136 S. Ct. 1000 (2016) (mem.). Many commenters viewed the Supreme Court's stay of such a massive piece of environmental regulation as unprecedented. Dan Fisher, 'Unprecedented' Supreme Court Stay Reflects An Audacious EPA Rule, Forbes, (Feb. 11, 2016, 5:21 PM), https://www.forbes.com/sites/danielfisher/2016/02/11/unprecedented-supreme-court-stay-reflects-an-audacious-epa-rule/. It's unclear whether the Court would be willing to issue such a stay again.

Jonathan H. Adler, Supreme Court puts the brakes on the EPA's Clean Power Plan, WASH. POST (Feb. 9, 2016), https://www.washingtonpost.com/news/volokh-conspiracy/wp/2016/02/09/supreme-court-puts-the-brakes-on-the-epas-clean-power-plan/. In fact, on remand, the D.C. Circuit declined to vacate the rule. Application for CPP Stay, supra note 11, at 2 (citing White Stallion v. Envtl. Prot. Agency, No. 12-1100 (Dec. 15, 2015) (per curiam)).

⁹⁹ Michigan v. Envtl. Prot. Agency, 135 S. Ct. 2699, 2705 (2015).

National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, 77 Fed. Reg. 9304, 9326 (Feb. 16, 2012) (to be codified at 40 C.F.R. pts. 60, 63).

¹⁰¹ Michigan, 135 S. Ct. at 2706.

the EPA declared that, at the time of the Court's final merits decision, the majority of power plants were either in compliance or on the way to compliance.¹⁰²

C. To Preserve the Stay, the Trump Administration Argued for Abeyance, not Remand, While it Pursued a Repeal

At the time of the presidential transition, the Clean Power Plan litigation had been fully briefed and argued in the D.C Circuit.¹⁰³ On March 28, 2017, the same day E.O. 13,783 was released, the EPA Administrator published a notice in the Federal Register announcing the EPA's review of the Clean Power Plan.¹⁰⁴ Also, on the same day, the EPA filed a motion to hold the Clean Power Plan litigation in abeyance, which was granted on April 28, 2017, for sixty days.¹⁰⁵

1. Opponents of the Plan Argued for Abeyance

The D.C. Circuit wrestled with whether remand or abeyance was the appropriate action. In its April 28th order, the D.C. Circuit requested that the parties file supplemental briefs addressing whether the Clean Power Plan cases should be remanded to the agency rather than held in abeyance.¹⁰⁶ Abeyance would have allowed the stay to remain in place, while a remand would have caused the rule to go back into effect and the parties' arguments reflected their feelings about the Plan.

The EPA and those states and entities challenging the Clean Power Plan have argued in favor of abeyance, not remand. The EPA used only policy arguments for abeyance, claiming abeyance would "preserve the status quo, conserve judicial resources, and allow the Trump Administration to focus squarely on completing its current review of the Clean Power Plan . . . as expeditiously as possible." The other entities challenging the Clean Power Plan argued that abeyance: (1) would best protect the Petitioner's rights to judicial review and the court's ability to resolve challenges to the rule should the EPA not revise or rescind the Rule; (2) has become the court's typical practice when the agency says it intends to reconsider a rule; and (3) would further the purposes of the

Janet McCabe, In Perspective: The Supreme Court's Mercury and Air Toxics Rule Decision, Envtl. Prot. Agency: The EPA Blog (June 30, 2015), https://blog.epa.gov/blog/2015/06/in-perspective-the-supreme-courts-mercury-and-air-toxics-rule-decision/.

¹⁰³ EPA Status Report at 1, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Nov. 9, 2017) (per curiam) (order granting abeyance) (summarizing the state of the Clean Power Plan litigation).

¹⁰⁴ Id. at 2 (citing Review of the Clean Power Plan, Notice, 82 Fed. Reg. 16,329 (Apr. 4, 2017)).

¹⁰⁵ West Virginia v. Envtl. Prot. Agency, No. 15-1363, slip op. (D.C. Cir. April 28, 2017) (per curiam) (order granting abeyance).

¹⁰⁶ Id. at 2.

Supplemental Brief of Respondent at 1, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Aug. 8, 2017) (per curiam) (order granting abeyance). This rationale for an abeyance and stay of a rule resurfaces again—and is adopted—in litigation over the Waste Reduction Rule. See infra Part IV (discussing Am. Petroleum Inst. v. Envtl. Prot. Agency, No. 13-1108 (D.C. Cir. May 18, 2017) (per curiam) (order granting abeyance)).

Supreme Court stay.¹⁰⁸ The entities supported the idea that the EPA should submit periodic status reports as part of the abeyance.¹⁰⁹

2. Proponents of the Plan Argued that Abeyance and APA Section 705 Should Not Be Used in Concert to Circumvent Notice-And-Comment

The NGOs, States, and Municipalities supporting the Clean Power Plan argued for a decision on the merits, but in the alternative, a remand instead of an abeyance. ¹¹⁰ In a joint brief, the State and Municipalities argued that obligations to file status reports would not sufficiently incentivize the EPA to take final action to resolve the case. ¹¹¹ They also argued that Congress did not intend that rules be indefinitely stayed, citing CAA section 307(d)(7)(B), which authorizes the EPA to administratively stay a rule for a maximum of three months. ¹¹²

The NGOs argued that APA section 705, the provision purportedly¹¹³ authorizing the Supreme Court stay, would no longer apply if the case was held in abeyance, because the language of APA section 705 authorizes courts to stay a rule only "pending judicial review." The NGOs argued that the EPA was acting to avoid judicial review altogether in requesting an abeyance. The NGOs asserted: "[t]he agency cannot be allowed to accomplish through abeyance something it cannot do on its own: an indefinite suspension of a duly promulgated rule without judicial review, without a notice-and-comment rulemaking, and without any reasoned explanation." ¹¹⁶

Power companies in support of the rule echoed these arguments. The companies argued that an indefinite abeyance in light of the Supreme Court stay would allow the EPA to circumvent notice and comment, the procedural requirements of the APA and CAA.¹¹⁷ To circumvent the Supreme Court's underlying reasoning for the stay, the companies argued that the D.C. Circuit conduct an expedited and ongoing judicial re-

Supplemental Brief of Petitioners and Petitioner-Intervenors at 2, 5, 7, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Aug. 8, 2016) (per curiam) (order granting abeyance).

¹⁰⁹ Id. at 9.

¹¹⁰ State and Municipal Respondent-Intervenors' Supplemental Brief at 1, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Aug. 8, 2017) (per curiam) (order granting abeyance).

¹¹¹ *Id.* at 9 n.6 (citing cases that had been held in abeyance for eight and nine years, respectively).

¹¹² Id. at 10.

¹¹³ The Supreme Court's order did not provide any legal reasoning for the stay. West Virginia v. Envtl. Prot. Agency, 136 S. Ct. 1000 (U.S. 2016),

¹¹⁴ Supplemental Brief of Public Health and Environmental Organization Respondent-Intervenors at 6, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Aug. 8, 2017) (per curiam) (order granting abeyance).

^{115 [}Corrected] Respondent-Intervenor Public Health and Environmental Organizations' Opposition to Motion to Hold Cases in Abeyance at 8, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Apr. 28, 2017) (per curiam) (order granting abeyance).

¹¹⁶ Id. at 4.

¹¹⁷ Supplemental Brief of Intervenors, supra note 65, at 3-6.

view.¹¹⁸ The companies argued that the Supreme Court did not intend that the rule be stayed during administrative reconsideration.¹¹⁹

3. THE D.C. CIRCUIT OPTS FOR GRANTING REVOLVING ABEYANCES

After receiving the supplemental briefing, the D.C. Circuit resolved to continue to grant revolving temporary abeyances. Subsequent sixty-day abeyances were granted on August 8 and November 9, 2017,¹²⁰ and on March 1, 2018.¹²¹ For each, the court has required the EPA to file status reports at thirty-day intervals.¹²²

The October status report conveyed the EPA's intent to repeal the Clean Power Plan. ¹²³ On October 16, 2017, the Proposed Rule repealing the Clean Power Plan was published in the Federal Register and it provided for a comment period of 60 days (until December 15, 2017) with the option of a public hearing. ¹²⁴ The Proposed Rule did not contemplate a replacement of the rule, but solely a repeal, as the parties in support of the Clean Power Plan pointed out. ¹²⁵

The D.C. Circuit has given no explanation as to why it is granting abeyances over a remand. The only discussion in the August, November, and March abeyance orders indicates that at least some of the D.C. Circuit judges may be discomforted with a protracted stay, given the court's affirmation of the endangerment finding and the finding's triggering the EPA's affirmative statutory duty to regulate carbon dioxide. Two judges, Tatel and Millett, concurred in the abeyance issued on August 8, 2017, going out of their way to note its effect was one "of relieving EPA of its obligation to comply with [the] statutory duty [to regulate greenhouse gases] for the indefinite future." However, the judges noted that the Supreme Court was the proper body to resolve that issue, since the stay originated with that court.

¹¹⁸ Id.

¹¹⁹ *Id.* at 4–5, 5 n.5 (citing *e.g.* Nat. Res. Def. Council, Inc. v. Envtl. Prot. Agency, 683 F.2d 752, 763 n.23 (3rd Cir. 1982)) (rejecting an "indefinite postponement of a rule" without compliance with the APA because it "would allow an agency to do indirectly what it cannot do directly").

¹²⁰ *Id.* at 3. The court rejected the Administration's request to indefinitely suspend the litigation. West Virginia v. Envtl. Prot. Agency, No. 15-1363, slip op. at 1 (D.C. Cir. Nov. 9, 2017) (per curiam) (order granting abeyance).

¹²¹ West Virginia v. EPA, No. 15-1363 (D.C. Cir. Mar. 1, 2018) (order granting abeyance).

¹²² EPA Status Report, supra note 103, at 3.

¹²³ Id.

¹²⁴ Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035, 48,035 (proposed Oct. 16, 2017) (to be codified at 40 C.F.R. pt. 52). The comment period was extended to April 26, 2018.

¹²⁵ Respondent-Intervenor Public Health and Environmental Organizations' Response at 3, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Nov. 9, 2017) (per curiam) (order granting abeyance); State and Municipal Respondent-Intervenors' Response at 2, West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Nov. 9, 2017) (per curiam) (order granting abeyance).

¹²⁶ West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. Aug. 8, 2017) (per curiam) (order granting abeyance).

¹²⁷ Id. (Tatel & Millett, JJ., concurring).

¹²⁸ Id.

Thus far, no one has returned to the Supreme Court to challenge the stay. Until that time, it is likely that the D.C. Circuit will continue to grant the agency's abeyance requests. If, as time passes, the EPA does not seem to be actively reconsidering the Plan, the D.C. Circuit may reconsider its acceptance of the EPA's abeyance requests. However, the sheer complexity of greenhouse gas regulation would make it difficult for any agency to rework the rule quickly. So, with the Clean Power Plan rollback, the EPA has accomplished the bulk of the Administration's goals: to defer compliance costs for industry while dismantling a rule. But the stay-and-abeyance strategy will be difficult to replicate, as the strategy hinged on the fortuitous 2016 judicial stay, something the EPA originally opposed.

IV. THE WASTE PREVENTION RULE: How the BLM ARGUED THAT APA SECTION 705 ALLOWS FOR STAYING COMPLIANCE DATES

The second rule examined presents a more typical litigation posture for the Administration, which centers on APA section 705. ¹²⁹ Unlike the EPA with the Clean Power Plan, the BLM had *not* briefed its arguments before the presidential transition; the rule was published a mere ten days after the 2016 election. So, after the transition, the Trump Administration was faced with a rule having staggered compliance dates and the potential to create some costs for industry, but without being locked into a litigation position defending the rule. ¹³⁰ Since the transition, the BLM has issued three rules or proposed rules affecting the rollback of the Waste Prevention Rule: the Postponement Notice, the Suspension Rule, and the Revision Rule. Three district courts thus far—one in Wyoming¹³¹ and two in California¹³²—have struggled to make sense of these rollbacks. Their rulings are discussed below. The following also shows how the nascent litigation on the Waste Prevention Rule has allowed the BLM and the courts to advance various interpretations of 705 and its effect on a rule's compliance dates.

¹²⁹ In that a judicial stay did not simply fall into the Administration's lap.

It is unclear what the cost of compliance to industry has been. As a district court pointed out, the BLM assumed in its Suspension Rule (Dec. 8, 2017) that industry had incurred no compliance costs to meet the original Jan. 17, 2018, deadlines imposed by the original rule. California v. Bureau of Land Mgmt., 286 F. Supp. 3d 1054, 1069 (N.D. Cal. 2018). However, the assumption that industry was not already moving toward compliance seems unreasonable; as the president of the industry organization Western Energy Alliance explained in April, "Many companies are already doing this type of activity, they're just not documenting and proving to the federal government that they're doing it." Cooper McKim, Oil & Gas Struggling To Comply With Obama-era Methane Regulations, Wyo. Pub. Media (Apr. 3, 2018), http://wyomingpublicmedia.org/post/oil-gas-struggling-comply-obama-era-meth ane-regulations.

¹³¹ Addressing the Waste Prevention Rule.

¹³² Addressing the Postponement Notice and the Suspension Rule.

A. BACKGROUND ON THE WASTE PREVENTION RULE

The BLM published its final methane rule on November 18, 2016. The rule had an effective date of January 17, 2017, three days before inauguration day. ¹³³ Some provisions mandated compliance by January 2017, ¹³⁴ but other provisions had compliance dates of January 2018. ¹³⁵ Even then, the regulations would not have reached full effect until 2026. ¹³⁶

The rule was intended to limit the loss of natural gas, which consists mostly of methane, through venting, flaring or leaks from oil and gas production on public and Indian lands.¹³⁷ The BLM's new rule clarified when the lost gas was subject to royalties and when the gas could be used on-site for free.¹³⁸ The rule replaced provisions that were over 35 years old.¹³⁹ In promulgating the final rule, the BLM cited a variety of statutes as authority for its actions.¹⁴⁰ Unlike the Clean Power Plan, it is seen to rest on a stronger legal foundation.

Second, the BLM extended the compliance dates in response to commenters' concern that coming into compliance with a long-term flaring limit of 1,800 Mcf/month/well would take longer than the three years that the BLM had proposed. The final rule postpones the effective date of any capture requirements for one full year after the effective date of the rule. Thereafter, the final rule incrementally increases the required capture targets over a nine year period and incrementally decreases the flaring allowable volumes over an eight year period. Final rule § 3179.7(b) extends the time an operator has to meet the flaring allowable volume of 1,800 Mcf/month/well until calendar year 2021, about four years after the effective date of the final rule (and about two additional years after the 1,800 Mcf/month/well fixed flaring limit would have taken effect under § 3179.6(b)(3) of the proposed rule).

Id. The BLM also agreed to modify "the final rule to allow for a one year phase-in period," such that "the first round of leak detection inspections must be completed by January 17, 2018." *Id.* at 83,033.

Waste Prevention, Production Subject to Royalties, and Resource Conservation, 81 Fed. Reg. 83,008, 83,008 (Nov. 18, 2016) (to be codified at 43 C.F.R. pts. 3100, 3160, 3170).

See Waste Prevention, Production Subject to Royalties, and Resource Conservation, Notice of Postponement of Certain Compliance Dates, 82 Fed. Reg. 27,430, 27,430 (June 15, 2017) ("Compliance with certain other provisions of the Rule is already mandatory[.]").

Waste Prevention, Production Subject to Royalties, and Resource Conservation, 81 Fed. Reg. at 83,025.

¹³⁶ *Id.* at 83,011 ("Specifically, beginning one year from the effective date of the final rule, operators must capture 85 percent of their adjusted total volume of gas produced each month. This percentage increases to 90 percent in 2020, 95 percent in 2023, and 98 percent in 2026.").

¹³⁷ Id. at 83,008.

¹³⁸ Id.

¹³⁹ Id.

¹⁴⁰ Id. at 83,019 ("Pursuant to a delegation of Secretarial authority, the BLM is authorized to regulate oil and gas activities on Federal and Indian lands under a variety of statutes, including the MLA, the MLAAL, FOGRMA, FLPMA, the IMLA, the IMDA, and the Act of March 3, 1909.").

B. WITH THE POSTPONEMENT NOTICE, THE BLM ARGUES THAT APA SECTION 705 ALLOWS A DELAY OF COMPLIANCE DATES WITHOUT NOTICE-AND-COMMENT

Only days after the promulgation of the Waste Prevention Rule, industry groups and States filed petitions for judicial review of the rule under APA section 706.¹⁴¹ The litigation was consolidated in the U.S. District Court for the District of Wyoming.¹⁴² The rule then went into effect on January 17, 2017, after the Wyoming court denied motions for preliminary injunctions and instead set an expedited briefing schedule.¹⁴³ On March 28, 2017, the President issued E.O. 13,783, which specifically targeted the Waste Prevention Rule for review.¹⁴⁴ The following day, the Secretary of the Interior directed the agency to review the rule.¹⁴⁵

On June 15, 2017, following a failed attempt to use the Congressional Review Act to roll back the methane rule, ¹⁴⁶ the BLM published a two-page notice (the Postponement Notice) in the Federal Register delaying the January 2018 compliance dates, citing APA section 705. ¹⁴⁷ As discussed in Part II.C.3, section 705 of the APA provides that, "[w]hen an agency finds that justice so requires, it may postpone the effective date of action taken by it, pending judicial review." ¹⁴⁸ The BLM pointed to the Wyoming litigation as the "pending litigation" that triggered the applicability of APA section 705. ¹⁴⁹ The BLM argued that "compliance date" was within the meaning of the term "effective date," as used in APA section 705. ¹⁵⁰ The BLM also noted that it "intend[ed] to conduct notice-and-comment rulemaking to suspend or extend the compliance dates of those sections affected by the Rule," but declined to set a comment period at the time. ¹⁵¹

Waste Prevention, Production Subject to Royalties, and Resource Conservation, Notice of Postponement of Certain Compliance Dates, 82 Fed. Reg. 27,430, 27,430 (June 15, 2017); Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, 2017 WL 161428, at *4 (D. Wyo. Jan. 16, 2017) (discussing how petitioners challenged the rule as arbitrary and capricious and in excess of the BLM's statutory authority).

Waste Prevention, Production Subject to Royalties, and Resource Conservation, Notice of Postponement of Certain Compliance Dates, 82 Fed. Reg. at 27,431 (citing ongoing litigation in Wyoming v. Dep't of the Interior, No. 2:16-CV-0285-SWS).

Wyoming, 2017 WL 161428, at *12 (finding that the rule's opponents had "not clearly and unequivocally established a likelihood of success on the merits and irreparable harm").

¹⁴⁴ See supra Part I.B.

DEP'T OF INTERIOR, ORDER NO. 3349, AMERICAN ENERGY INDEPENDENCE 4 (The BLM is an agency within the Department of the Interior).

Juliet Eilperin & Chelsea Harvey, Senate Unexpectedly Rejects Bid to Repeal a Key Obama-Era Environmental Regulation, WASH. POST (May 10, 2017), https://www.washingtonpost.com/ news/energy-environment/wp/2017/05/10/senates-poised-to-repeal-a-final-obama-era-ruleas-soon-as-wednesday/.

¹⁴⁷ Waste Prevention, Production Subject to Royalties, and Resource Conservation, Notice of Postponement of Certain Compliance Dates, 82 Fed. Reg. at 27,431.

^{148 5} U.S.C. § 705 (2012).

Waste Prevention, Production Subject to Royalties, and Resource Conservation, Notice of Postponement of Certain Compliance Dates, 82 Fed. Reg. at 27,431 (June 15, 2017). The Wyoming litigation was *not* in abeyance at the time.

¹⁵⁰ Id.

¹⁵¹ Id.

Several days later, the Wyoming court granted the BLM's request for an extension of the briefing deadlines, concluding that to move forward "would be inefficient and a waste of both the judiciary's and the parties' resources in light of the shifting sands surrounding the Rule." 152

Perhaps seeking a more sympathetic venue, environmental groups and some states then challenged the Postponement Notice itself in California district court, where it was vacated on October 4, 2017.¹⁵³ Citing United States v. Mead, ¹⁵⁴ the California district court held that, because Congress had not delegated authority to the BLM to administer the APA, its interpretation of section 705 was not entitled to deference.¹⁵⁵ The court noted that only one decision, Safety-Kleen Corp. v. EPA, 156, discussed using APA section 705 to postpone a rule that had already gone into effect. 157 Safety-Kleen held that APA section 705 does not permit an agency to suspend a promulgated rule without notice and comment.¹⁵⁸ The court also noted that the plain meaning of "effective date" did not include compliance dates and it cited no BLM or EPA precedent that equated compliance dates with effective dates. 159 The court pointed to the speed in which opponents to the BLM rule had filed suit in Wyoming to reject the argument that, if APA section 705 only applied to stays of effective dates, the statute would have no meaning because parties would not have sufficient lead time in which to act.160 The court concluded that to give an agency such power to reverse course without notice and comment would disrupt the status quo of a regulated community that had already started moving toward compliance.161

Considering the pervasive nationwide impact of the new Rule on state and federal regulation of the nation's waters, and the still open question whether, under the Clean Water Act, this litigation is properly pursued in this court or in the district courts, we conclude that petitioners have acted without undue delay and that the

Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, slip op. at 3 (D. Wyo. June 27, 2017) (order granting extended briefing deadlines).

¹⁵³ California v. Bureau of Land Mgmt., 277 F. Supp. 3d 1106 (N.D. Cal. 2017). On March 14, 2018, the BLM dropped its appeal of this decision in an unopposed motion. Motion to Voluntarily Dismiss Appeal, California v. Bureau of Land Mgmt., No. 17-17456 (N.D. Cal. Mar. 15, 2018) (order of dismissal).

¹⁵⁴ United States v. Mead, 533 U.S. 218, 226-27 (2001).

¹⁵⁵ California, 277 F. Supp. 3d at 1117.

¹⁵⁶ Safety-Kleen Corp. v. Envtl. Prot. Agency, 1996 U.S. App. LEXIS 2324, at *2 (D.C. Cir. Jan. 19, 1996).

¹⁵⁷ California, 277 F. Supp. 3d at 1118.

¹⁵⁸ Safety-Kleen Corp., 1996 U.S. App. LEXIS, at *2-3.

¹⁵⁹ California, 277 F. Supp. 3d at 1117-20.

¹⁶⁰ Id. at 1125.

¹⁶¹ Id. at 1120 ("After years of developing the Rule and working with the public and industry stakeholders, the Bureau's suspension of the Rule five months after it went into effect plainly did not 'maintain the status quo.' To the contrary, it belatedly disrupted it."). But see In re U.S. Envtl. Prot. Agency, 803 F.3d 804, 806 (6th Cir. 2015), vacated on jurisdictional grounds, In re U.S. Dep't of Def., 713 F. App'x 489 (6th Cir. 2018) (the vacated order authorizing a stay of the Clean Waters of the United States rule (WOTUS) less than two months after the rule's effective date). In In re EPA, the 6th Circuit found that maintaining the status quo would be to return to the pre-rule regime:

As an additional basis for its decision, the court held that the postponement was arbitrary and capricious under APA section 705. The court held that: "[b]ecause of the complete failure to consider the foregone benefits of compliance, Defendants have failed to meet the "justice so requires" requirement of APA section 705." In addition, the agency had relied on the same Regulatory Impact Analysis that it had previously relied on to adopt the Waste Prevention Rule. Therefore, the agency had not met the Supreme Court's standard articulated in Fox Television Stations: that "reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy." All in all, the court concluded that an agency cannot use APA section 705 without notice and comment to postpone the compliance dates of a rule once the effective date has passed.

C. WITH THE SUSPENSION RULE, THE BLM USES THE SHORTEST COMMENT PERIOD POSSIBLE TO SUSPEND PARTS OF THE RULE AND TO BEGIN REWRITING

On October 5, 2017, the BLM attempted to remedy its earlier error and reinstate a stay by publishing a proposed rule that included a thirty-day notice and comment period (the proposed Suspension Rule). The rule would temporarily postpone the implementation dates of certain provisions of the Waste Prevention Rule, regardless of whether the provisions were already in effect. The BLM again cited for its legal basis a variety of statutes, as well as its inherent authority to reconsider the rule. The BLM chose to limit comment to thirty days, despite the fact that the minimum comment period recommended under E.O. 12,866 is sixty days. By late December 2017, the BLM had finalized the Suspension Rule. In response, the Wyoming court granted an abeyance of the litigation, pending the EPA's final revisions to the Waste Prevention Rule, "or at least

status quo at issue is the pre-Rule regime . . . that has been in place for several years

Id.

¹⁶² California, 277 F. Supp. at 1122–25.

¹⁶³ Id. at 1123.

¹⁶⁴ *Id.* (quoting Fed. Commc'n Comm'n v. Fox Television Stations, Inc., 556 U.S. 502, 515–16 (2009)).

Waste Prevention, Production Subject to Royalties, and Resource Conservation, 82 Fed. Reg. 46,458, 46,460 (proposed Oct. 5, 2017) (to be codified at 43 C.F.R. pt. 3160).

¹⁶⁶ Id.

¹⁶⁷ *Id.* (citing Ivy Sports Med., LLC v. Burwell, 767 F.3d 81, 86 (D.C. Cir. 2014)) (noting "oft-repeated" principle that the "power to reconsider is inherent in the power to decide").

Environmental Defense Fund et al., Comment Letter on Proposed Rule for Waste Prevention, Production Subject to Royalties, and Resource Conservation, at 3, 3 n.7 (Oct. 20, 2017), https://www.regulations.gov/document?D=BLM-2017-0002-0099 (arguing that "each agency should afford the public a meaningful opportunity to comment on any proposed regulation, which in most cases should include a comment period of not less than 60 days," citing Executive Order 12,866, 58 Fed. Reg. 51,735 (Mar. 30, 1993)).

while the Suspension Rule was in effect."¹⁶⁹ But, by that time, challenges to the Suspension Rule had already been launched—again in California.¹⁷⁰

The Suspension Rule did not operate for long. On February 22, 2018, that second California district court granted a preliminary injunction to the parties opposed to the Suspension Rule finding that "the Suspension Rule is untethered to evidence contradicting the reasons for implementing the Waste Prevention Rule, and so plaintiffs are likely to prevail on the merits." The court found substantive flaws in the rationale presented for the Suspension Rule, 172 as well as procedural flaws, including the lack of a meaningful notice and comment period. 173 In granting the injunction, the court weighed heavily the environmental injuries that would manifest "statewide, to the general public, and on the personal level," concluding that "the plaintiffs easily met their burden" to show likely harm. 174 However, as promised, the BLM had been working on a replacement rule. The same day as the California ruling, the BLM published a proposed Revision Rule on February 22, 2018, with a comment period set to close on April 23, 2018. 175

In response, the Wyoming court lifted its abeyance of the Waste Prevention Rule litigation and set a briefing schedule to consider motions regarding whether to continue with the abeyance and suspend or vacate the remaining deadlines.¹⁷⁶ In a brief, four-page discussion, the court decided to continue holding the litigation in abeyance and to stay the implementation of the Waste Prevention Rule,¹⁷⁷ basing its authority to act in APA section 705 and citing concerns with wasting judicial resources, honoring the doctrine of prudential ripeness, and preventing compliance costs.¹⁷⁸ The court also questioned

Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, slip op. at 5 (D. Wyo. Apr. 4, 2018) (order staying implementation of rule provisions).

¹⁷⁰ Ellen M. Gilmer, Everyone's Fighting Over BLM's Methane Rule—Again, E&E NEWS (Dec. 20, 2017), https://www.eenews.net/stories/1060069481. Among other issues, the new suits challenge the BLM's cost benefit analysis, which incorporates the Administration's reduced social cost of methane, as well as the sufficiency of the evidence that would justify the repeal.

¹⁷¹ California v. Bureau of Land Mgmt., 286 F. Supp. 3d 1054, 1058 (N.D. Cal. 2018).

¹⁷² *Id.* at 1069 (finding inconsistent accounting of only temporary lost environmental benefits, given the assumption of future zero compliance costs and a lack of a reasonable basis for the assumption that no compliance costs had already been incurred).

¹⁷³ Id. at 1072–73 (finding that the Secretary of the Interior impermissibly restricted the scope of the comments by refusing to consider the substance or merits of the Waste Prevention Rule, while at the same time rationalizing the Suspension Rule as necessary to address the cost and complexity of compliance with the Waste Prevention Rule).

¹⁷⁴ Id. at 1075.

Waste Prevention, Production Subject to Royalties, and Resource Conservation; Rescission or Revision of Certain Requirements, 83 Fed. Reg. 7,924, 7,924 (proposed Feb. 22, 2018) (to be codified at 43 C.F.R. pts. 3160 and 3179.

Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, slip op. at 6–7 (D. Wyo. Apr. 4, 2018) (order staying implementation of rule provisions).

Only the Waste Prevention Rule's phase-in provisions were stayed. *Id.* at 10. The remainder of the rule remains in effect. *Methane and Waste Prevention Rule*, Bureau of Land Mgmt., https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/methane-and-waste-prevention-rule (last visited Apr. 17, 2018) (noting that only six provisions were stayed).

¹⁷⁸ Wyoming, slip op. at 9–11.

whether APA section 705 required that a court apply the four-factor preliminary injunction test in determining whether relief should be granted.¹⁷⁹ Instead, it only considered the irreparable harm to industry—"the unrecoverable expenditure of millions of dollars in compliance costs"—by the "full and immediate implementation" of the Waste Prevention Rule.¹⁸⁰ Unlike in the California court's ruling on the Suspension Rule, the Wyoming court never discussed harm to public health or the environment.¹⁸¹

D. WITH THE REVISION RULE, THE BLM WILL NEED TO PROVIDE "A REASONED EXPLANATION . . . FOR DISREGARDING FACTS AND CIRCUMSTANCES THAT UNDERLAY . . . PUBLIC POLICY" 182

In short, the Waste Prevention Rule rollback represents the Administration's attempt to use whatever means possible to suspend the compliance dates of a rule, first with the Postponement Notice, by attempting to postpone compliance dates without notice and comment citing APA section 705, then with the Suspension Rule, but advancing insufficient justification to administratively suspend compliance dates. Despite its initial setbacks, the BLM finally succeeded in staying a portion of the rule and is now well into the process of writing a new rule.

V. THE OIL AND GAS NEW SOURCE PERFORMANCE STANDARDS: STAYING A RULE THROUGH CLEAN AIR ACT POWERS

The third rule examined here is the EPA's 2016 Oil and Gas NSPS, which shows how the EPA has tried to leverage its governing statutes to stay final rules.¹⁸³ Like the Waste Prevention Rule, there is a strong legal basis for the original rule and the litigation was not as far along at the time of the presidential transition. No briefing schedule was in place, no briefs had been filed, and no oral argument was scheduled at the time of the transition.¹⁸⁴ Rapidly, the new Administration obtained an abeyance. But instead of then looking to APA section 705, the EPA cited its own statutory authority to administratively delay the rule. That story is ongoing.

¹⁷⁹ *Id.* at 9 n.10. As noted *supra*, it is unclear if this interpretation will be upheld, as the court relied on the California district court's opinion invalidating the Postponement Notice, where the court focused on an *agency's* duty under 705, not those of a *reviewing court*.

¹⁸⁰ Id. at 9, 11. The court also did not explain how it had arrived at that calculated cost—whether those millions were the savings from the postponement of just certain provisions, or the cost of the entire rule.

See id. at 7–11. Previously, when denying a preliminary injunction, the court had questioned whether it was appropriate for the BLM to have considered environmental and social benefits since "protection of air quality" is arguably not within the regulatory preview of the BLM, but rather that of the EPA. Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, 2017 WL 161428, at *6–7 (D. Wyo. Jan. 16, 2017).

¹⁸² See Fed. Commc'n Comm'n v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009).

¹⁸³ Also known as the methane rule, or Quad-O rule.

¹⁸⁴ Industry Petitioners' Joint Response in Support of EPA's Motion at 2, Am. Petroleum Inst. v. Envtl. Prot. Agency, No. 13-1108 (D.C. Cir. May 18, 2017) (per curiam) (order granting abeyance).

A. BACKGROUND ON THE 2016 OIL & GAS NSPS

The EPA published the Oil & Gas NSPS in the Federal Register as a final rule on June 3, 2016, with an effective date of August 2, 2016.185 The rule regulated both methane and volatile organic compounds (VOC) emissions from new, modified, and reconstructed equipment, processes, and activities in the oil and natural gas sector supply chain; it would regulate all the way from the well site to the gas processing plant. 186 For the first time, this rule promulgated methane standards for the oil and gas sector. 187

Like the history of carbon dioxide regulation as a greenhouse gas, the history of the regulation of methane originates first in the Supreme Court's holding in Massachusetts v. EPA that greenhouse gases are air pollutants covered by the CAA and second in the EPA's subsequent endangerment finding. 188

Once the EPA made its endangerment finding, it had the authority and discretion to develop NSPS for methane emissions from stationary sources under CAA section 111(b).189 NSPS for other constituents had already been issued for some oil and gas sources. In 2012, the EPA fulfilled its mandatory duty to review NSPS every eight years by issuing the 2012 rule, which did not include methane. 190 So unlike the Clean Power Plan, the 2016 rule rested on an oft-cited, solid legal basis: section 111(b) of the Clean Air Act. 191

On June 24, 1985, the EPA promulgated an NSPS for the source category that addressed VOC emissions from leaking components at onshore natural gas processing plants. On October 1, 1985, a second NSPS was promulgated for the source category that regulates SO₂ emissions from natural gas processing plants. In 2012, pursuant to its duty under CAA section 111(b)(1)(B) to review and, if appropriate, revise NSPS, the EPA published the final rule, 'Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution' ('2012 NSPS'). The 2012 NSPS updated the SO₂ standards for sweetening units and VOC standards for equipment leaks at onshore natural gas processing plants. In addition, it established VOC standards for several oil and natural gas-related operations not covered by 40 CFR. part 60, subparts KKK and LLL, including gas well completions, centrifugal and reciprocating compressors, natural gas-operated pneumatic controllers, and storage vessels.

Oil and Natural Gas Sector: Emissions Standard for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35,824 (June 3, 2016) (to be codified at C.F.R. pt, 60).

¹⁸⁶ *Id.* at 35,825–27.

¹⁸⁷ Press Release, Envtl. Prot. Agency, EPA Releases First-Ever Standards to Cut Methane Emissions from the Oil and Gas Sector (May 12, 2016), https://www.epa.gov/newsreleases/ epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector.

See supra Part III.

Oil and Natural Gas Sector: Emissions Standard for New, Reconstructed, and Modified Sources, 81 Fed. Reg. at 35,829.

¹⁹⁰ Id.

Id. (internal citations omitted).

¹⁹¹ Amy Harder, Trump EPA: Obama's EPA Had Legal Basis for Methane Rule, AXIOS (Oct. 31, 2017), https://www.axios.com/trumps-epa-obamas-epa-had-legal-basis-for-methane-rule-250 4007822.html.

The 2016 rule also rested on a solid factual basis.¹⁹² The rule was the third of three NSPS standards promulgated for the oil and gas sector and, although it was the first to regulate methane, the EPA had investigated methane emissions even when writing the first NSPS rule in 2012.¹⁹³ By the time of the 2016 rule's final promulgation, the EPA had developed an extensive factual record to support the final rule, including issuing a series of peer-reviewed white papers.¹⁹⁴ the EPA also consulted with a wide range of stakeholders through multiple teleconferences, webinars, and public hearings.¹⁹⁵

B. THE EPA QUICKLY RECEIVES AN ABEYANCE ON LITIGATION AND FOCUSES ON CLEAN AIR ACT TOOLS, NOT SECTION 705, TO STAY THE RULE AND RELIEVE THE BURDEN OF COMPLIANCE

A petition for review challenging the Oil and Gas NSPS was filed on July 15, 2016, in the D.C. Circuit.¹⁹⁶ The court consolidated that case with several other oil and gas NSPS rule challenges¹⁹⁷ and placed it in abeyance on May 18, 2017.¹⁹⁸ In the meantime, the 2016 rule remained in effect.¹⁹⁹

The EPA was able to request and receive an abeyance for the ongoing litigation fairly quickly. The May 18th abeyance order paused litigation "pending further order of the court" while the EPA reconsidered the rule.²⁰⁰ The court required the EPA to submit status reports regarding the progress of the 2016 rule review at sixty-day intervals and required that the parties file motions regarding future proceedings "within 30 days of the agency notifying the court and the parties what action it has or will be taking with respect to the 2016 Rule."²⁰¹

With the abeyance accomplished, the EPA searched its administrative toolbox to stay the rule. Because the rule regulated new (not existing) sources, the rule was immediately effective with no subsequent compliance dates, a fact that seems to have rendered the EPA hesitant to use the same tactic²⁰² as that pursued in the BLM's Postponement Notice. So far, the EPA has attempted to implement both a ninety-day and two-year

¹⁹² See Oil and Natural Gas Sector: Emissions Standard for New, Reconstructed, and Modified Sources, 81 Fed. Reg. at 35,830–31 (describing the data reviewed, and the opportunity for comment provided, in the 2016 rulemaking process).

¹⁹³ *Id.* at 35,830.

¹⁹⁴ Id.

¹⁹⁵ Id. at 35,830-31.

¹⁹⁶ Petition for Review, North Dakota v. Envtl. Prot. Agency, No. 16-1242 (D.C. Cir. July 15, 2016).

¹⁹⁷ North Dakota v. EPA was consolidated with two other challenges to the EPA's rulemaking for the oil and gas sector. See Am. Petroleum Inst. v. Envtl. Prot. Agency, No. 13-1108 (D.C. Cir. filed Apr. 3, 2013); Indep. Petroleum Ass'n of Am. v. Envtl. Prot. Agency, No. 15-1040 (D.C. Cir. filed Feb. 27, 2015).

Am. Petroleum Inst. v. Envtl. Prot. Agency, No. 13-1108, slip op. at 1 (D.C. Cir. May 18, 2017) (per curiam) (order granting abeyance).

¹⁹⁹ Opposition of State Respondent-Intervenors to EPA's Motion at 4, Am. Petroleum Inst. v. Envtl. Prot. Agency, No. 13-1108 (D.C. Cir. May 18, 2017) (per curiam) (order granting abeyance).

²⁰⁰ Am. Petroleum Inst., slip op. at 1.

²⁰¹ Id. at 1-2.

^{202 5} U.S.C. § 705 (2012).

administrative stay of this rule and has explored introducing "phased-in" compliance dates where none previously existed. But, both approaches have prompted legal challenges before the D.C. Circuit and a flurry of public comments.

1. The EPA's Use of CAA Section 307(d) is Rejected as Basis for a Ninety-Day Stay

On April 18, 2017, the EPA disclosed its intent to issue a ninety-day stay in its response to industry petitioners who had requested a reconsideration of the Oil & Gas NSPS rule on August 2, 2016.²⁰³ The EPA authorized the ninety-day stay as a part of reconsideration proceedings under CAA section 307(d)(7)(B).²⁰⁴ The ninety-day stay was formally issued on June 5, 2017, when additional requirements were added to the administrative reconsideration proceeding.²⁰⁵

The EPA identified CAA section 307(d)(7)(B) as the legal basis for its authority in issuing a ninety-day stay of certain requirements of the rule during the reconsideration. As discussed in Part II.C.2, under CAA section 307(d)(7)(B), a petitioner's objection leads to reconsideration and a maximum 3-month stay if: (1) it was impracticable to raise such an objection at the time of the rule making; and (2) the objection is of central relevance to the outcome of the rule.

The EPA agreed with the petitioners that several requirements of the rule met the test in CAA section 307(d)(7)(B) and a stay during reconsideration was therefore appropriate. The EPA stayed the requirements for fugitive emissions, pneumatic pumps located on well sites, and certifications of closed vent systems by professional engineers.²⁰⁷ The stay was retroactive to June 2, 2017.²⁰⁸

Environmental groups quickly challenged the stay in the D.C. Circuit, and on July 3, 2017, the court granted their motion to vacate the EPA's stay.²⁰⁹ The court determined that it had jurisdiction over the stay decision as a final agency action; in the court's words, the stay was "essentially an order delaying the rule's effective date, and this court has held that such orders are tantamount to amending or revoking a rule."²¹⁰ The court then concluded that the EPA lacked authority under the Clean Air Act to stay the rule and thus vacated the stay as arbitrary, capricious, and in excess of statutory authority.²¹¹

²⁰³ Letter from E. Scott Pruitt, Adm'r, Envtl. Prot. Agency, to Howard J. Feldman, Am. Petroleum Inst. et al. (Apr. 18, 2017), https://www.epa.gov/sites/production/files/2017-04/documents/oil_and_gas_fugitive_emissions_monitoring_reconsideration_4_18_2017.pdf.

There is some indication that legal rationale behind this stay was rushed and not well developed. See Pruitt Interview, supra note 4 ("I think that our section 307 stay that we used there was because we were up against the compliance time and try to use authority that we thought was well established.").

²⁰⁵ Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, Notice of Reconsideration and Partial Stay, 82 Fed. Reg. 25,730, 25,732 (June 5, 2017).

²⁰⁶ Id.

²⁰⁷ Id.

²⁰⁸ Id. at 25,731.

²⁰⁹ Clean Air Council v. Pruitt, 862 F.3d 1, 14 (D.C. Cir. 2017) (per curiam).

²¹⁰ Id. at 6.

²¹¹ Id. at 4, 8.

The court identified two errors in the EPA's rationale. First, the court rejected the EPA's argument that the agency has "inherent authority" to "issue a brief stay" of a final rule while the agency reconsiders the rule.²¹² The court said that the "EPA must point to something in either the Clean Air Act or the APA that gives it authority to stay the methane rule," which it had failed to do in citing CAA section 307(d)(7)(B).²¹³ Second, the court noted that the EPA had not relied on its "so-called inherent authority" when granting reconsideration, but on CAA section 307(d)(7)(B).²¹⁴

The court found that the only basis the EPA had given, CAA section 307(d)(7)(B), did not grant the EPA authority for this stay because reconsideration of the rule was not mandatory.²¹⁵ The court rejected the EPA's determination that it was impracticable for the industry petitioners to have raised their objections during the original rule making. As such, the reconsideration was not mandated and the EPA had acted in excess of its statutory authority under CAA 307(d)(7)(B) in issuing a stay.

Throughout the opinion, however, the court emphasized that the EPA had broad discretion to reconsider a regulation at any time.²¹⁶ Specifically, the court held that its opinion in no way limited the EPA's authority to reconsider the final methane rule and proceed with its June 16 Notice of Proposed Rulemaking.²¹⁷ But, any agency reconsidering a rule would be bound to "comply with the Administrative Procedure Act (APA), including its requirements of notice and comment."²¹⁸

To allow EPA to seek rehearing, the court agreed to temporarily stay its mandate that EPA begin enforcing the Oil & Gas NSPS. Intervenors in favor of the stay filed for rehearing *en banc*, but on July 31, 2017, the panel on its own motion ordered the court to issue the mandate reinstating the deadlines in the Oil & Gas NSPS while briefing was pending.²¹⁹ Shortly thereafter, the panel ultimately denied the petition for rehearing *en banc*, leaving EPA with the responsibility to enforce the Oil & Gas NSPS.²²⁰ As of April 2018, there has been no evidence of EPA conducting enforcement actions.

2. The EPA Now Argues that CAA Section 301 Gives it Implied Powers to Impose a Two-Year Stay, or "Phase-in," of Compliance

But the EPA had already proposed a two-year stay of certain requirements of the rule on June 16, 2017—before the D.C. Circuit ruled—that was intended to follow the ninety-day stay.²²¹ The EPA proposed the stay "to provide the EPA with sufficient time

²¹² *Id.* at 9.

²¹³ Id.

²¹⁴ Id.

²¹⁵ Id.

²¹⁶ Id. at 8.

²¹⁷ Id. at 14 (citing Fed. Commc'n Comm'n v. Fox Television Studios, Inc., 556 U.S. 502, 515 (2009)).

²¹⁸ Id. at 9.

²¹⁹ Clean Air Council v. Pruitt, No. 17-1145 (D.C. Cir. Jul. 31, 2017) (order revoking temporary stay of mandate).

²²⁰ Clean Air Council v. Pruitt, No. 17-1145 (D.C. Cir. Aug. 10, 2017) (order denying rehearing en banc).

Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements, 82 Fed. Reg. 27,645 (proposed June 16, 2017) (to be codified at 40 C.F.R. pt. 60).

to propose, take public comment on, and issue a final action on the issues concerning the specific requirements on which the EPA has granted reconsideration."²²²

The EPA reaffirmed its desire to stay the rule in its notice of data availability (NODA) of November 8, 2017.²²³ In the NODA, the EPA sought comment on its legal authority to grant a stay during the reconsideration process. The EPA proposed that its legal authority came from the general grant of powers under CAA section 301(a): "The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter." The EPA also requested feedback on its powers to establish phase-in periods for certain requirements as an alternative to a stay. A number of stakeholders submitted comments regarding the EPA's authority under the Clean Air Act. Comments were due December 8, 2017.

In its comments, the American Petroleum Institute (API) reiterated its support for the EPA's interpretation that would add phase-in periods for the rule. The API pointed out that CAA section 111 spoke only to effective dates, not compliance dates.²²⁶ The API argued that Congress did not consider "effective date" and "compliance date" to be synonymous and that, as CAA section 111 is silent with respect to when new sources must achieve compliance, the EPA then has authority "to establish a reasonable compliance period after the effective date of a rule."²²⁷ The API urged that the EPA has this authority because the 2016 NSPS were part of a voluntary rulemaking and addition of compliance dates would not collide with the statutorily-mandated schedule for rulemaking.²²⁸

The API seemed to show less preference for the EPA's idea that CAA section 301 could empower the EPA to issue a broad stay, but nonetheless defended the use of section 301(a) to support phase-in powers.²²⁹ The API argued that CAA section 301 gave the agency broad powers, "provided that Congress has not written a 'clear impediment to the issuance' of a regulation, or no other 'statutory language on point' exists."²³⁰ Lumping together two restrictions that prohibit the broad applicability of CAA section 301 when "a more specific provision" exists, the API rejected the argument that CAA sec-

²²² Id.

Oil and Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements, 82 Fed. Reg. 51,788 (proposed Nov. 8, 2017) (to be codified at 40 C.F.R. pt. 60).

²²⁴ Id. at 51,790; 42 U.S.C. § 7601 (2012).

Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements, 82 Fed. Reg. at 51,789. The proposed phase-in periods appear to be functionally similar to compliance dates.

American Petroleum Institute, Comment on Proposed Rule on Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements (Dec. 8, 2017), http://www.api.org/~/media/Files/News/Letters-Comments/2017/20171208-API-Comments-on-NSPS-OOOOa-NODA-Final.pdf (citing other NSPS that incorporated future compliance deadlines).

²²⁷ Id. at 2-3, 3 n.2 (citing other NSPS that incorporated future compliance deadlines).

²²⁸ Id. at 3-4.

²²⁹ Id.

²³⁰ Id. at 4 (quoting Nat. Res. Def. Council v. Envtl. Prot. Agency, 22 F.3d 1125, 1148 (D.C. Cir. 1994); Nat. Res. Def. Council v. Envtl. Prot. Agency, 749 F.3d 1055, 1063 (D.C. Cir. 2014)).

tion 307(d)(7)(B) was such a provision.²³¹ Instead, the API argued that the section only governs mandatory reconsiderations, referring to the ruling in *Clean Air Council*.²³² The API also rejected APA section 705 as a limit on the EPA's powers "because it is a portion of a different statute and therefore sheds no light on the EPA's CAA rulemaking authority."²³³

With a variety of arguments, major environmental groups strongly opposed using CAA section 301 to either stay the rule outright or introduce "phased-in" compliance dates. The groups pointed to both CAA section 111(b)(1)(B), which states that the NSPS "shall become effective upon promulgation," and CAA section 307(d)(7)(B) as limiting the EPA's power under CAA section 301.²³⁴ Instead, the only lawful action the EPA could take to modify a NSPS once promulgated would be a revision of the standard, which would require the EPA to follow CAA section 111's substantive and procedural requirements.²³⁵ The groups asserted that courts have already rejected the argument that the EPA has inherent authority to alter rules outside the limits of the APA and the relevant statute.²³⁶

The groups also rejected the arguments regarding the breadth of CAA section 301 powers. Regulations promulgated under section 301 must be "necessary and appropriate," and a stay that conflicts with CAA section 111(b)'s requirement that rules be effective upon promulgation would not be necessary or appropriate.²³⁷ The groups interpreted NRDC v. Reilly, which the EPA had cited to support its interpretation of CAA section 301, as ruling that "section 301(a)'s general grant of rulemaking authority could not displace [an] explicit schedule for issuing standards."238 The groups argued that the NSPS rulemaking had triggered an explicit schedule under CAA section 111 for issuing standards; they argued that once the EPA initiated the 2016 review, "it must propose all appropriate amendments to the standards within one year and finalize those amendments within one year of the proposal."239 The groups argued that this schedule applied to any performance standard issued under CAA section 111(b)(1)(B), not just the first time the agency regulated a source category after its initial listing.²⁴⁰ The groups argued that, from a policy standpoint, a contrary interpretation would create absurd results given that the statute speaks in terms of regulating sources, not pollutants. If a different rulemaking process was allowed for discretionary review of the NSPS:

²³¹ Id. at 5.

²³² Id.

²³³ Id.

²³⁴ Id. at 10.

²³⁵ Clean Air Council et al., Comment Letter on Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements, at 6 (Dec. 8, 2017), https://www.nrdc.org/sites/default/files/comments-epa-supplement-proposed-stay-methane-standards-20171208.pdf.

²³⁶ Id. at 7.

²³⁷ Id. at 8–9 (citing relevant language in cases such as Alabama Power Co. v. Costle, 636 F.2d 323, 402 (D.C. Cir. 1979); Nat. Res. Def. Council v. Envtl. Prot. Agency, 22 F.3d 1125, 1148 (D.C. Cir. 1994)).

²³⁸ Id. at 10.

²³⁹ Id. at 11 (citing 42 U.S.C. § 7411(b)(1)(B)).

²⁴⁰ Id.

The first pollutant or point source that EPA regulates for a given source category is subject to section 111(b)(1)(B)'s rigid requirements for review and revision at least once every eight years, while any subsequent pollutant or point source can be regulated, reviewed, and revised according to a schedule that EPA chooses at its own discretion and with no recourse to the prescriptive language of section $111(b)(1)(B)[.]^{241}$

The groups also addressed the EPA's powers under APA section 705 to postpone the past effective date and, among other arguments, cited the recent decisions from California on the repeal of the BLM's rules, including the Waste Prevention Rule.²⁴² The groups mirrored arguments made against other rollbacks: that any stay was effectively a repeal and must be substantiated by reasoned explanation and facts, all of which were lacking in the EPA's notice.²⁴³ The groups pointed to precedent that "[t]he Clean Air Act 'requires a much more detailed notice of proposed rulemaking than does the APA.'"²⁴⁴

As of April 2018, the EPA was in the process of reviewing and responding to the comments received by these interest groups.²⁴⁵ It is probable that the EPA will not be dissuaded by contrary opinions regarding its legal authority but will pursue adding phased-in compliance dates, as suggested by API. Any such final action is likely to be promptly challenged by environmental groups. Because of the implications of interpreting CAA section 301 to give the EPA such broad powers, any reviewing court should not accept the EPA's arguments as to its powers under CAA section 301(a).²⁴⁶ Until then, the 2016 Oil & Gas NSPS remain in place.

VI. ANALYSIS

Thus far, the Administration has had mixed results in delaying rules to cut compliance costs for the industry. Its success has largely come from the speed with which it has attacked regulations, and its novel interpretations of APA and CAA provisions. But for many rules, the Administration has been rebuked for trying to dodge notice and comment requirement before rolling out stays. While there has been some public participation, public opinion seems unlikely to sway the Administration from its course of regulatory rollbacks and cutting compliance costs. Even while legal efforts are being stymied in court, the agencies' efforts broadcast the flexibilities available in the rules it

²⁴¹ Id. at 12.

²⁴² Id. at 13-14.

²⁴³ Id. at 16.

²⁴⁴ Id. at 20 (quoting Union Oil Co. v. Envtl. Prot. Agency, 821 F.2d 678, 682 (D.C. Cir. 1987)).

²⁴⁵ On March 12, 2018, the EPA amended two narrow provisions of the Oil & Gas NSPS, based on responses to its November NODA. Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 83 Fed. Reg. 10,628, 10,628 (March 12, 2018) (to be codified at 40 C.F.R. pt. 60). Petitions for judicial review of the rule are due by May 11, 2018. *Id.* at 10,629. The EPA did not address the proposed stay in this rulemaking. *Id.* at 10,630.

²⁴⁶ See supra Part VI.

has targeted for rollback, encouraging state regulators and the regulated community to delay compliance.²⁴⁷ As the Administration's strategy unfolds, however, many commenters doubt that many of the rollbacks will survive judicial scrutiny.²⁴⁸

A. Could an Administration Rely on the Good Cause Exception to Speed Rollbacks?

The Administration has not relied on the APA's good cause exception in the fight over the three rules examined by this paper. The good cause exception allows an agency to waive notice and comment and make a rule immediately effective. This could allow an agency to immediately issue a repeal or stay of a rule and, in fact, is a tactic the EPA uses to delay the effective dates of many midnight rules.²⁴⁹ Although the Clean Air Act limits the EPA's use of APA section 553 in certain circumstances, it could still be a strategy in other circumstances and for other agencies like the BLM.²⁵⁰

Two separate subsections of APA section 553 invoke the good cause exception.²⁵¹ APA section 553(b) on rulemaking requires that "[g]eneral notice of proposed rule making shall be published in the Federal Register," unless certain exceptions apply.²⁵² The applicable exception to notice and comment of APA section 553(b) states:

Except when notice or hearing is required by statute, this subsection does not apply . . . (B) when the agency for good cause finds (and incorporates the finding and a brief statement of reasons therefor in the rules issued) that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest.²⁵³

247 E.g. Letter from Scott Pruitt, Adm'r, Envtl. Prot. Agency, to John Linc Stine, Comm'r, Minn. Pollution Control Agency (Apr. 11, 2017), https://www.eenews.net/assets/2017/04/13/document_gw_04.pdf.

I would like to remind you of the flexibilities available under the 2015 [Effluent Limitations Guidelines] Final Rule . . . The Rule also specifies that in determining what date is "as soon as possible," permitting authorities may decide on a date Later than November 1, 2018, after receiving information from the discharger. Under the Rule, the date determined by the permitting authority is to reflect a consideration of certain factors, including "other factors as appropriate.

Id.

248 Coral Davenport & Lisa Friedman, In Rush to Kill Obama-Era Rules, Pruitt Puts Own Agenda at Risk, N.Y. Times, April 8, 2018, at A16.

250 E.g., 42 U.S.C. § 7607(d)(1) (2012).

Further Delay of Effective Dates for Five Final Regulations, 82 Fed. Reg. 14,324, 14,325 (Mar. 20, 2017) (to be codified at 40 C.F.R. pts. 22, 51, 124, 171, 300, 770) (relying on the good cause exception to delay the effective dates of five environmental regulations).

The Seventh Circuit distinguished between these two provisions as differing in scope. Steel Corp. v. Envtl. Prot. Agency, 605 F.2d 283, 286 (7th Cir 1979), cert. denied, 444 U.S. 1035 (1980). However, the Third, Fifth, and D.C. Circuits have rejected that distinction. N.J. Dep't of Envtl. Prot. v. Envtl. Prot. Agency, 626 F.2d 1038, 1045 (D.C. Cir. 1980); Sharon Steel Corp. v. Envtl. Prot. Agency, 597 F.2d 377, 379 (3d. Cir. 1979); Steel Corp. v. Envtl. Prot. Agency, 595 F.2d 207, 214 (5th Cir. 1979).

^{252 5} U.S.C. § 553 (2012).

²⁵³ Id.

APA Section 553(d) also allows a good cause exception for a rule's effective date: "The required publication or service of a substantive rule shall be made not less than 30 days before its effective date, except . . . as otherwise provided by the agency for good cause found and published with the rule." ²⁵⁴

The good cause exception has been "narrowly construed and only reluctantly countenanced."²⁵⁵ As the Fifth Circuit has noted, the good cause exceptions "should not be used . . . to circumvent the notice and comment requirements whenever an agency finds it inconvenient to follow them."²⁵⁶

Additionally, the use of APA section 553(b) has been rejected when public health is at stake, which could become a consideration as courts weigh the health impacts of rolling back certain rules.²⁵⁷ In *National Association of Farmworkers v. Marshall*, the D.C. Circuit rejected the Secretary of Agriculture's promulgation of a rule that governed the exposure of child farmworkers (10 to 11 years of age) to pesticides.²⁵⁸ The court stated:

[W]hen a health-related standard such as this is involved, the good cause exemption may not be used to circumvent the legal requirements designed to protect the public by ensuring that interested persons will have the opportunity to bring to the agency's attention all relevant aspects of the proposed action and thereby enhance the quality of agency decisions.²⁵⁹

The D.C. Circuit was quoting a California district court that had applied this same principle in rejecting an interim rule that allowed the use of mechanically-deboned meat pending final rulemaking.²⁶⁰ Like in the farmworkers case, the Secretary had erred by proceeding without notice, public participation, or a delayed effective date.²⁶¹

As environmental rules considered for rollback almost uniformly impact the public health and, as the good cause exception is generally narrowly construed, it is unlikely that the Administration would be able to rely on the exceptions in APA sections 553(b) and 553(d) to speed up its rollbacks.

B. THE ADMINISTRATION'S ACTIONS COULD INCREASE THE EFFECTIVE Power of Regulatory Agencies

An unintended consequence of this Administration's expansive interpretations of its powers to rollback rules is that the precedent that develops will continue to exist after this Administration is gone. A subsequent Administration could feasibly use abeyances,

²⁵⁴ Id.

²⁵⁵ N.J. Dep't of Envtl. Prot., 626 F.2d at 1045–46 (collecting a variety of circuit court opinions).

²⁵⁶ Steel Corp., 595 F.2d at 214.

²⁵⁷ See California v. Bureau of Land Mgmt., 286 F. Supp. 3d 1054, 1074–75 (N.D. Cal. 2018) (finding sufficient irreparable harm likely if the Suspension Rule was upheld, given the anticipated harm to public health).

²⁵⁸ Nat'l Assoc. of Farm Workers Orgs. v. Marshall, 628 F.2d 604, 606 (D.C. Cir. 1980).

²⁵⁹ Id. at 621 n.9 (quoting Cmty. Nutrition Inst. v. Butz, 420 F. Supp. 751, 754 (D.D.C. 1976)).

²⁶⁰ Cmty. Nutrition Inst., 420 F. Supp. at 754.

²⁶¹ *Id.* at 753; see Waiver of Child Labor Provisions for Agricultural Employment, 43 Fed. Reg. 26,562, 26,562 (June 21, 1978) (indicating that the rule was promulgated under § 553(d) and effective immediately).

the APA, and general grants of rulemaking powers to repeal rules that this Administration promulgates.

WITHOUT TAKING A HARD LOOK AT AN AGENCY'S REQUEST FOR ABEYANCE, A COURT COULD FACILITATE THE ADMINISTRATION'S ABUSE OF LITIGATION DELAYS

In all three rules examined, the Administration requested and was granted an abeyance of ongoing litigation over the Obama-era rules. However, the courts did not clearly state why they granted the abeyances. In two of the three rules examined in this paper—the Clean Power Plan and the Waste Prevention Rule—the reviewing courts gave no rationale for their grants of abeyance. In the third rule—the Oil and Gas NSPS—the court provided no one clear explanation, citing a variety of reasons for granting the abeyance, including "judicial economy and prudential ripeness and mootness concerns."²⁶²

Whether to grant an abeyance will naturally depend on the particulars of each case. To use a balancing test is expected, but it should be a balancing of the effects on all parties as well as the courts. Concerns about judicial economy, ripeness, and prudential mootness²⁶³ are valid, but other issues are at play as well. Courts could also look to the factors governing preliminary injunctions, which like many abeyances, would be granted or denied before full merits briefing. While likely success on the merits may be less relevant—given that litigation is ongoing—the other three factors do apply: the harm brought about by a delay to both the moving party and others,²⁶⁴ as well as the public interest. The harm analysis should consider all possible harms, not just those that the regulation is designed to address. The public interest analysis should not ignore the priorities of the regulation's governing statute. For example, a Clean Air Act regulation should prioritize public health over costs to industry—or at acknowledge it. And before a court considers the benefits of maintaining the status quo, it should be sure that the parties have presented sufficient information as to what status quo actually is.

As they have done with the Administration's rollbacks, courts should continue to closely monitor whether an agency that has received an abeyance for the stated purpose of reexamining a rule is indeed moving steadily toward that goal. Abeyances of limited duration should be the norm. Status reports should be required, and closely scrutinized.

Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, slip op. at 10 (D. Wyo. Apr. 4, 2018) (order staying implementation of rule provisions).

Prudential mootness itself requires that a court consider whether the challenged practice is likely to repeat, even if the controversy in question is settled. United States v. W. T. Grant Co., 345 U.S. 629, 632 (1953). In 2017, the Northern District of California rejected the rollback of the Oil & Gas and Federal & Indian Coal Valuation Rule. Becerra v. Dep't of Interior, 276 F. Supp. 3d 953, 960 (N.D. Cal. 2017). The court weighed the likelihood that the BLM would continue to impermissibly use section 705 to repeal rules when analyzing prudential mootness concerns and found, "[t]he likelihood that one or more Defendants will use the same strategy to effectively repeal regulations . . . without statutory authority after their effective date is not remote." *Id.* Indeed, the BLM proved the court correct when it advanced the same strategy in the Postponement Notice.

²⁶⁴ But cf. Wyoming, slip op. at 10–11. In that opinion, the court focused on the cost of compliance to industry, and the additional regulatory costs of asking the BLM to litigate in the midst of a rollback. Id.

And courts should review each subsequent abeyance request critically to this end.²⁶⁵ Any other dilatory litigation tactic should also be examined for its actual purpose.

While this hard look may increase the burden on the courts, a full balancing of all relevant factors is necessary to provide the appropriate oversight of and check on agency action, especially during a time of political transition, when political point-scoring may be prioritized over sound administrative decision-making.

2. Courts Should Carefully Scrutinize New Interpretations of Section 705 When Offered by Agencies or Other Courts

The Administration's rollbacks have also implicated APA section 705—with both the judiciary and agencies citing it to stay certain rule provisions. Some commenters hypothesize that APA section 705 was the basis for the Supreme Court's stay of the Clean Power Plan, although the Court provided no rationale in its order to validate that theory. With the Postponement Rule, the BLM cited APA section 705 as its basis to extend compliance dates since "justice so require[d]." But that argument was soundly rejected by a California district court, and the BLM dropped its appeal. The Wyoming court then relied on APA section 705 to grant both a stay and abeyance of the Waste Reduction Rule. And as for the proposed two-year stay of the Oil & Gas NSPS, the EPA has requested comment on whether it can base its stay in part on APA section 705—although because this stay is still only a proposal, no court has had the opportunity to weigh-in on these arguments.

Because APA section 705 uses different language to describe the power given to courts verses agencies, debate exists over the extent of each's power.²⁶⁶ Before the recent rollbacks, many courts used the four-factor injunction test to decide whether to act "to postpone the effective date of an agency action or preserve status or rights."²⁶⁷ However, in staying the Waste Reduction Rule, the Wyoming district court questioned if a reviewing court need consider the preliminary injunction test at all.²⁶⁸

The relevant test for when an agency may invoke APA section 705 is also unclear. The Administration has argued that the statute only requires a finding that "justice so requires." If so, an agency still "must have articulated, at a minimum, a rational connection between its stay and the underlying litigation."²⁶⁹ But an agency should be consistent—for example, in the past, EPA has used the preliminary injunction factors when considering granting relief under APA section 705, which would suggest that it should continue to do so.²⁷⁰ The only court to rule squarely on this issue before the presidential transition found that APA section 705 required that agencies evaluate the preliminary injunction factors before postponing effective dates.²⁷¹

²⁶⁵ Hopefully, the D.C. Circuit is carrying out this responsibility in the Clean Power Plan rollback. See generally West Virginia v. Envtl. Prot. Agency, No. 15-1363 (D.C. Cir. filed Oct. 23, 2015).

²⁶⁶ See supra Part II.C.3.

²⁶⁷ See 5 U.S.C. § 705 (2012).

Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, slip op. at 9 n.10 (D. Wyo. Apr. 4, 2018) (order staying implementation of rule provisions).

²⁶⁹ Sierra Club v. Jackson, 833 F. Supp. 2d 11, 34 (D.D.C. 2012).

²⁷⁰ See id. at 31.

²⁷¹ Id. at 30–31.

Additionally, courts should stay wary that the Administration may advance previously rejected arguments in other forums. For example, the BLM's interpretation of "effective date" to include compliance dates has already been rejected twice—but by the same judge in both cases.²⁷² Now, as part of the proposed two-year stay of certain Oil & Gas NSPS provisions, EPA continues to advance a variant of that argument as a possible basis to postpone past effective dates and add stagger compliance dates.²⁷³ If EPA relies on a similar argument in a final rule, a court should careful scrutinize these prior decisions, even if they are not binding, and fully explore APA section 705's purpose to clarify this unsettled area of the law. An expansive interpretation of APA section 705 would greatly expand the power subsequent Administrations have to undo prior regulations—including the replacement rules proposed now.

Finally, under no circumstance should a court allow an agency to cite APA section 705 to postpone a rule while operating under an abeyance. If a court deems an abeyance necessary, it should ensure that the agency is pursuing the normal administrative processes of notice and comment to rollback or amend the rule, not leveraging section 705 to avoid APA procedures. While jurists and legal scholars disagree how much latitude new administrations should have to alter existing regulations, courts should be wary of creating loopholes to avoid actual notice-and-comment on rollbacks or delays of regulations.

3. Expanding the Scope of CAA Sections 111(b) and 301 Also Expands the Number of Rules that Could be Rolled Back by Subsequent Administrations

Another potential expansion of administrative power comes from the Trump Administration's interpretation of its agencies' general rulemaking powers. Take the proposed two-year stay of the Oil & Gas NSPS. If CAA section 301 gives the EPA broad power to stay any rule, each new Administration could feasibly postpone any previously-enacted rule, as long as no statutory conflict existed. Even if CAA section 301 only applied to rules with effective or compliance dates not yet in effect, few complex rules with staggered compliance deadlines would be safe. An agency might be incentivized to finalize rules as quickly as possible and set compliance dates to begin by the end of a presidential term.

Another concerning argument in the Oil & Gas NSPS rollback is the proposed interpretation of CAA section 111(b). EPA currently is exploring whether CAA section 111(b) would allow it to add phased-in compliance dates after the effective date of a rule has passed. When considering the implications of such a reading, a reviewing court should consider that CAA section 111(b) is directed to new sources. One reason to allow for staggered compliance dates is to provide sources time to modify existing equipment and processes—but for new sources, there is nothing existing to modify. Therefore, to read CAA section 111(b) to allow staggered compliance dates would seem to be introducing a power to remedy an issue that does not exist for new sources.

²⁷² Magistrate Judge Elizabeth D. Laporte decided both cases. See Becerra v. Dep't of Interior, 276 F. Supp. 3d 953, 954 (N.D. Cal. 2017); California v. Bureau of Land Mgmt., 277 F. Supp. 3d 1106, 1109 (N.D. Cal. 2017).

²⁷³ See supra Part V.B.2.

And giving agencies more power to alter final rules will create more uncertainty for the regulated community. For even more rules, a regulated entity would need to weigh the likelihood of the rule being repealed with the cost of non-compliance. Especially for rules that require significant lead-time for industry to install new technology, or implement new procedures, the regulated community will be left with uncertainty as to whether to comply, especially if a presidential election is not far away. This dilemma is playing out in the rollback of the Waste Prevention Rule, as the court noted:

Regulated entities with large operations had already needed to make concrete preparations after the Rule had not only become final but had actually gone into effect. The uncertainty that can arise from this kind of sudden agency reversal of course is illustrated by its impact on the regulated entities here. As Intervenor Western Energy Alliance explained to the Court at oral argument, many of the companies it represents within the gas and energy industry stopped moving toward compliance with the Rule based, in significant part, on Defendants' issuance of the Postponement Notice. . . . Intervenor Western Energy Alliance contended that some large regulated entities would be less likely to be able to meet the compliance deadline of January 17, 2018 because they relied on Defendants' postponement.²⁷⁴

It will be interesting to see how far this fear of uncertainty drives the regulated community itself to push for less power for agencies to initiate rollbacks. Industry has already shown hesitancy to endorse the EPA's proposals carte blanche. For example, in its comments on the 2016 Oil & Gas NSPS, API gently pushed back on the EPA's interpretation of CAA section 301 to grant broad stay powers.²⁷⁵ Instead, API endorsed CAA section 111(b) as a way for the EPA to phase-in even rules that have no compliance dates.²⁷⁶ While ultimately this could be a distinction without a difference (phase-in periods of excessive duration could become the same as a complete stay), it is an indication that at least the regulated community is assessing the merits of arming the EPA with excessive powers to change its rules every four years.

C. The Judiciary Should be Cautious in Deferring to the New Administration's Repeals and Legal Theories

It remains to be seen how the courts will assess the validity of the Administration's repeal of rules. As noted above, courts are more deferential when an agency interprets its own statute to authorize a stay, or a delay of compliance. But when that power is sought through the APA, courts are typically less deferential as with the rejected Postponement Notice. However, with interpretations that expand agencies powers to reach far into prior Administrations' regulations, courts should be cautious, if only in self-interest; approving of strategies that invite frequent policy reversals does little to preserve judicial

²⁷⁴ California, 277 F. Supp. 3d 1106, 1120 (N.D. Cal. 2017).

American Petroleum Institute, Comments on Envtl. Prot. Agency's Notice of Data Availability in Support of "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources: Stay of Certain Requirements," at 4–6 (Dec. 8, 2017), http://www.api.org/~/media/Files/News/Letters-Comments/2017/20171208-API-Comments-on-NSPS-OOOOa-NODA-Final.pdf.

²⁷⁶ See id.

economy. The Wyoming district court experienced "the waste, inefficiency, and futility associated with a ping-ponging regulatory scheme" firsthand, as it tried to navigate the Waste Prevention Rule litigation.²⁷⁷ Even its extension of briefing periods back-fired as the BLM used the time to advance dubious delay rules that resulted in more, not less litigation.

Even when the repeals have gone through notice and comment and are procedurally valid, the substantive changes should be scrutinized closely. While courts will largely be deferential to agency action, when an agency changes policy it must articulate the reasoning for the change.

An agency may not, for example, depart from a prior policy sub silentio or simply disregard rules that are still on the books. And of course the agency must show that there are good reasons for the new policy. But it need not demonstrate to a court's satisfaction that the reasons for the new policy are better than the reasons for the old one; it suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency believes it to be better, which the conscious change of course adequately indicates.²⁷⁸

And for several of the Administration's rollbacks, "a reasoned explanation . . . for disregarding facts and circumstances that underlay or were engendered by the prior policy" has not yet been offered.²⁷⁹ New analysis is required—the Administration must not simply recast the same science into new Regulatory Impact Analysis studies. For example, a mere 38-page document is unlikely to provide sufficient justification for the rollback of a rule that was originally supported with over 1,200 pages of justification and science.²⁸⁰

As the Trump Administration conducts its own studies and provides its own cost-benefit rationale, it will be easier for its agencies to survive a court's review. But it will take time. Cumulatively, over a decade of planning, research, and science went into to the promulgation of the three rules explored in this Note. To refute that research should also take time, especially given that, in some instances, this Administration has with-drawn requests for more information.²⁸¹ And critical to the Administration's success may be the willingness of the courts to defer to its rationale for downplaying the social cost of greenhouse gases to explain the repeals of these three rules and litigation has already been launched challenging these new estimates. Given the extensive record created by the previous Administration, the Trump Administration should face an uphill battle to justify its changes.

Wyoming v. Dep't of Interior, No. 2:16-CV-0285-SWS, slip op. at 11 (D. Wyo. Apr. 4, 2018) (order staying implementation of rule provisions).

²⁷⁸ Fed. Commc'n Comm'n v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009).

²⁷⁹ *Id.* at 515–16; see also, e.g. California v. Bureau of Land Mgmt., 286 F. Supp. 3d 1054, 1064 (N.D. Cal. 2018) ("As BLM agrees with Plaintiffs that the Suspension Rule represents a substantive change in policy . . . it is subject to the standard of review outlined by the Supreme Court in *Fox Television Stations*.").

²⁸⁰ Davenport & Friedman, *supra* note 248, at A16 (describing the paltry evidence the EPA submitted to rollback tailpipe emissions regulations).

Press Release, Envtl. Prot. Agency, EPA Withdraws Information Request for the Oil and Gas Industry (Mar. 2, 2017), https://www.epa.gov/newsreleases/epa-withdraws-information-request-oil-and-gas-industry.

VII. CONCLUSION

This paper discusses the merits and repercussions of the Trump Administration's legal tactics to repeal the EPA's Clean Power Plan, the BLM's Waste Prevention Rule, and the EPA's 2016 Oil and Gas NSPS. It is clear that the Trump Administration is driven primarily by the goal of reducing costs for industry, as can be seen in its litigation arguments, executive orders, and changes to estimates on the cost of greenhouse gases.

In the three rules examined here, the Administration has sought to use abeyance and broad interpretations of statutory language, such as CAA sections 307(d)(7)(B) and 301 and APA section 705, to extend the effective dates and compliance dates of the Obama-era rules. While litigation is still ongoing, the Administration has had mixed success in implementing these strategies and in circumventing notice-and-comment requirements. But regardless of its ability to prevail with its legal arguments, the Administration has succeeded in creating such a muddled regulatory environment that industry can justify non-compliance with these rules nonetheless.

Only time will tell which strategies will prevail and which will falter, but this Administration's varied approach to executing rollbacks as quickly as possible has the potential to leave administrative agencies with more power than when the President took office, despite his dislike of strong agencies. If upheld in court, the strategies currently pursued would allow future Administrations to reach further back than currently possible to rollback a prior Administration's regulations quickly and with less public participation. No party should desire this outcome, be it the judiciary (interested in judicial economy), industry (interested in a stable business environment), or environmental groups (interested in protection of resources). Let us hope that the courts see that.

Claire J. Krebs is a 2018 graduate of The University of Texas School of Law. She would like to thank Professor Thomas O. McGarity for his assistance with this paper.

AIR

THE ENVIRONMENTAL PROTECTION AGENCY'S UPDATED REGIONAL HAZE RULE

INTRODUCTION

On September 29, 2017, the U.S. Environmental Protection Agency (EPA) promulgated a revised Regional Haze and Interstate Visibility Transport Federal Implementation Plan for the state of Texas. This Development provides an overview of the revised Regional Haze Plan and briefly examines the consequences of the plan. It further summarizes the EPA's supplemental promulgation regarding the plan published August 27, 2018.

REGULATORY BACKGROUND

The EPA defines regional haze as "a visibility impairment that is produced by a combination of sources and activities that are located across a wide geographic area and emit $PM_{2.5}$ (e.g., sulfates, nitrates, organic carbon, elemental carbon, and soil dust), and its precursors (e.g., sulfur dioxide (SO_2), nitrogen oxide (NO_X))."² The EPA describes the visibility impairment as "fine particulate precursors react in the atmosphere to form $PM_{2.5}2$, which absorbs and scatters visible light" which "reduces the clarity, color, and visible distance that can be seen."³ The EPA also warns that $PM_{2.5}$ leads to serious health conditions in humans, and contributes to environmental effects.⁴

Under the Clean Air Act (CAA), the EPA is required to identify and remedy visibility impairments in "mandatory Class I Federal areas," which include national parks and wildlife refuges.⁵ The EPA was required to promulgate rules under which states develop state implementation plans (SIPs) to curb emissions that contribute to visibility impairment in these designated areas.⁶ In an effort to comply with this requirement, the EPA published the Regional Haze Rule (RHR) in 1999.⁷

The RHR, as amended in 2005, required states with Class I Federal areas affected by haze to develop and submit initial SIPs by December 17, 2007.8 The EPA denied portions of Texas's RHR SIP in 2012 and replaced those portions with the EPA's own Federal Implementation Plan (FIP) in 2016, pursuant to 42 U.S.C. § 4210(c)(1).9 Texas

Regional Haze and Interstate Visibility Transport Federal Implementation Plan, 82 Fed. Reg. 48,324, 48,324 (Oct. 17, 2017) (to be codified at 40 C.F.R. pts. 52 and 97).

² Id.

³ Id.

⁴ Id.

^{5 42} U.S.C. § 7491(a)(1) (2012).

⁶ Id. at § 7491(d).

Regional Haze Regulations, 64 Fed. Reg. 35,714 (Jul. 1, 1999) (to be codified at 40 C.F.R. pt. 51).

^{8 40} C.F.R. § 51.308(b) (2017).

⁹ See, e.g. Regional Haze: Revisions to Provisions Governing Alternatives to Source-Specific Best Available Retrofit Technology (BART) Determinations, Limited SIP Disappovals, and Federal Implementation Plans, 77 Fed. Reg. 33,642, 33,653 (June 7, 2012) (to be codified at

sought relief from the FIP's costly SO₂ scrubber installation requirements at electric generation units (EGUs), and the Fifth Circuit, in *Texas v. U.S. Environmental Protection* Agency (Fifth Cir. 2016), granted a temporary stay of EPA's FIP in July 2016.¹⁰

In response to the Fifth Circuit stay, the EPA issued amendments to the RHR on January 10, 2017.¹¹ Texas petitioned the D.C. Circuit for review of those RHR amendments, asserting that they were "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."¹² This petition was consolidated with similar petitions by other states; the docket was closed without decision.¹³

THE EPA'S UPDATED REGIONAL HAZE PLAN

In light of the Fifth Circuit's decision, the EPA readdressed Texas's SIP pursuant to the CAA requirements and promulgated a revised FIP. In its revised FIP, the EPA finalized its determination regarding the best available retrofit technology (BART) for EGUs in Texas. 14 Specifically, the EPA focused on the BART requirements for SO_2 , NO_X , and particulate matter (PM) emissions. 15

Regarding SO₂ requirements, the EPA decided to not require sulfur dioxide scrubbers and, instead, allowed EGUs in Texas to participate in intrastate trading programs (cap-and-trade).¹⁶ The intrastate cap-and-trade program the EPA adopted for Texas is modeled after the Cross-State Air Pollution Rule's (CSAPR) trading program.¹⁷ The EPA reasoned that participation in an intrastate cap-and-trade program would result in "reductions consistent with visibility transport requirements and is part of the long-term strategy to meet the reasonable progress requirements of the Regional Haze Rule."¹⁸

Regarding NO_X requirements, the EPA's updated FIP allows EGUs in Texas to continue to participate in the CSAPR trading program.¹⁹ The EPA based its determination on two previous rulings regarding CSAPR; specifically, a ruling that established an ozone season budget for NO_X^{20} and another ruling that considers CSAPR a better alternative

⁴⁰ C.F.R. pt. 51 and 52); Approval and Promulgation of Implementation Plans, 81 Fed. Reg. 296, 296 (Jan. 5, 2016) (to be codified at 40 C.F.R. pt. 52) (describing EPA's changes to Texas's and Oklahoma's implementations plans).

¹⁰ Texas v. Envtl. Prot. Agency, 829 F.3d 405, 435–36 (5th Cir. 2016).

Protection of Visibility: Amendments to Requirements for State Plans, 82 Fed. Reg. 3078, 3079 (Jan. 10, 2017) (to be codified at 40 C.F.R. pts. 51 and 52); see also Protection of Visibility: Amendments to Requirements for State Plans, 81 Fed. Reg. 26,942 (proposed July 1, 2016) (to be codified at 40 C.F.R. pts. 51 and 52).

Petition for Review at 1, Texas v. Envtl. Prot. Agency, No. 17-01021 (D.C. Cir. Jan. 23, 2017).

¹³ See West Virginia v. Envtl. Prot. Agency, No. 17-01022 (D.C. Cir. Mar. 1, 2018) (per curiam) (order granting abeyance).

Regional Haze and Interstate Visibility Transport Federal Implementation Plan, 82 Fed. Reg. 48,324, 48,324 (Oct. 17, 2017) (to be codified at 40 C.F.R. pts. 52, 97).

¹⁵ Id.

¹⁶ See id. at 48,324–25.

¹⁷ Id. at 48,353–54.

¹⁸ Id. at 48,329.

¹⁹ Id. at 48,324.

²⁰ *Id.* at 48,326; Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 Fed. Reg. 74,504, 74,507 (Oct. 26, 2016) (to be codified at 40 C.F.R. pts. 52, 78, and 97).

to BART for specific pollutants in those states that are already participating in the CSAPR trading program.²¹

Regarding particulate matter, the EPA agreed with the conclusion in Texas's SIP that BART does not apply to EGUs in Texas.²² This is a departure from its January 10, 2017 RHR, in which it disagreed with Texas's SIP.²³ The EPA supports this departure by stressing that the majority of Texas's BART-eligible EGUs fall under either the SO_2 or NO_X BART-alternatives.²⁴ Of the remaining EGUs, the EPA found that none of the units had PM emissions above the BART threshold.²⁵

CHALLENGE TO THE UPDATED REGIONAL HAZE PLAN

Several conservation groups have filed a petition that challenges the EPA's changes to its RHR for Texas.²⁶ The petition raises significant questions regarding the EPA's implementation of its authority. Because of these questions, the outcome from this litigation has national implications.

In a direct petition to the EPA to reconsider the revised FIP (EPA Petition), filed on the same day as its suit in the Fifth Circuit, the Sierra Club alleges that EPA Administrator Scott Pruitt violated the agency's own regulations by replacing the original FIP, which forced Texas coal-fired power plants to install pollution-control equipment, with a new agreement that allows coal-fired power plants in Texas to emit higher levels of pollutants, in addition to a new FIP that would not achieve "greater reasonable progress" than BART.²⁷ The petition focuses on SO₂; specifically, it focuses on the EPA's decision to forego requiring SO₂ scrubbers on EGUs in favor of a intrastate trading program modeled after the CSAPR.²⁸ The groups argue that the RHR "allows a state to rely on an alternative to BART only if the state demonstrates that the alternative in question—not some other program—would achieve greater reasonable progress than BART."²⁹ Under

Regional Haze and Interstate Visibility Transport Federal Implementation Plan, 82 Fed. Reg. at 48,324, 48,326; Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas, 81 Fed. Reg. 78,954 (proposed Nov. 10, 2016) (to be codified at 40 C.F.R. pt. 52).

²² Regional Haze and Interstate Visibility Transport Federal Implementation Plan, 82 Fed. Reg. at 48,324.

See Protection of Visibility: Amendments to Requirements for State Plans, 82 Fed. Reg. 3078, 3083 (Jan. 10, 2017) (to be codified at 40 C.F.R. pts. 51, 52).

²⁴ Regional Haze and Interstate Visibility Transport Federal Implementation Plan, 82 Fed. Reg. 48,331.

²⁵ Id. at 48,333–34.

Nat'l Parks Conservation Ass'n, Sierra Club, & Envtl. Def. Fund Petition for Review at PET-1, Nat'l Parks Conservation Ass'n v. Envtl. Prot. Agency, No. 17-60828 (5th Cir. Dec. 15, 2017).

²⁷ Letter from Sierra Club, Nat'l Parks Conservation Ass'n, and Envtl. Def. Fund to Scott Pruitt, Adm'r, Envtl. Prot. Agency 17–21 (Dec. 15, 2017), https://www.courthousenews.com/wp-content/uploads/2017/12/Sierra-Club-petition-for-reconsideration-of-Texas-haze-plan.pdf (Petition for Reconsideration of the Regional Haze and Interstate Visibility Transport Federal Implementation Plan rulemaking, citing 40 C.F.R. § 51.308(e)(2) (2017)).

²⁸ Id. at 7–9.

²⁹ Id. at 25.

this standard, the petition argues that the EPA's determination that a trading program would be more efficient than a BART standard contradicts the agency's own findings in a 2011 analysis that under the CSAPR trading program, Texas would be able to emit more than double the amount of SO_2 as compared to a BART standard.³⁰ Similarly, the petition also claims that the cap-and-trade program would let Texas power plants emit 34% more pollutants than they did in 2016—an extra 74,813 tons of toxins.³¹

Furthermore, the petition argues that the trading rule violated the CAA by circumventing the mandatory public comment requirement for new federal regulations; it argues that the EPA did not allow the public to comment on the cap-and-trade program during the comment period for the January 2017 rule because the program was not in that proposed rule.³² The petition ultimately aims to force the EPA to abide by the January 2017 version of the RHR or to hold a public comment period before finalizing any amendments to that rule.³³

In sum, the EPA significantly changed its earlier RHR regarding EGUs in Texas, especially concerning SO₂ requirements. Instead of requiring BART compliance in the form of SO₂ scrubbers, the EPA's new rule allows EGUs to participate in an intrastate trading program modeled after the interstate CSAPR program. This modification, and the manner in which it was promulgated, has been challenged by a coalition of conservation groups. The litigation highlights the issues of the EPA's control over a state's emission standards and the EPA's authority to revise its own rules.

FURTHER DEVELOPMENTS

On August 27, 2018, the EPA published a supplement proposing to affirm its previous partial approval of Texas' SIP amendments and the EPA's FIP, and also to provide an opportunity for comment on a number of issues.³⁴ The first of three major issues for comment is the FIP's establishment of the intrastate trading program capping SO₂ emissions for certain EGUs and the determination that such program meets the requirements for an alternative to BART for SO₂. The second major issue for comment is the EPA's finding that the BART alternatives in the October 2017 final rule to address BART for SO₂ and NOx at Texas EGUs result in adequate emission reductions to meet the CAA requirements for visibility regarding a number of National Ambient Air Quality Standards (NAAQS) issued between 1997 and 2010. A third major issue for comment is the approval of Texas' determination that no sources are subject to BART for PM_{2.5}. Comment is also sought on: (1) whether recent shutdowns of sources in the trading program and the merger of two source owners should impact the allocation methodology for SO₂ allowances; (2) whether BART for SO₂ would be better addressed by a source-specific approach; (3) whether a SIP based program would be better than a FIP; and (4) whether

³⁰ *Id.* at 28 (citing Envtl. Prot. Agency, Technical Support Document for Demonstration of the Transport Rule as a BART Alternative 10 (2011)).

³¹ Id. at 11 n. 33.

³² Id. at 11–14.

³³ Id. at 2 (citing 42 U.S.C. § 7607(d)(7)(B) (2012)).

Promulgation of Air Quality Implementation Plans; State of Texas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan: Proposal of Best Available Retrofit Technology (BART) and Interstate Transport Provisions, 83 Fed. Reg. 43,586 (Aug. 27, 2018) (to be codified at 40 C.F.R. pts. 52 and 97).

the approved trading program addresses the program's requirements for Reasonable Further Progress and long term results.³⁵ A public hearing was held in Austin on September 26, 2018, and the deadline for submitting comments to the EPA is October 26, 2018.

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FEDERAL CASENOTE

NATIONAL ASSOCIATION OF MANUFACTURERS V. DEPARTMENT OF DEFENSE, 138 S. Ct. 617 (2018)

INTRODUCTION

On January 22, 2018, the United States Supreme Court held that jurisdiction to consider challenges made to the Waters of the United States (WOTUS) rule must be filed in the United States District Courts (USDC) because the WOTUS rule falls outside the seven categories of Environmental Protection Agency (EPA) actions for which the United States Court of Appeals (USCA) has exclusive jurisdiction to review under the Clean Water Act of 1972 (CWA), codified in 33 U.S.C. § 1369(b)(1). The Court's decision overturns a ruling by the Sixth Circuit, which reached the opposite conclusion. ²

BACKGROUND AND PROCEDURAL HISTORY

The CWA prohibits "the discharge of any pollutant" to navigable waters from any point source, except in express circumstances.³ The CWA defines "navigable waters" as "the waters of the United States, including the territorial seas."⁴ The term "waters of the United States," however, is not defined in the statute. The Supreme Court has been called on for over a decade to interpret the meaning and scope of this critical statutory term, most recently in *Rapanos v. United States*, in which a fragmented 4–4–1 Court struggled with the issue.⁵

In 2015, the EPA and United States Army Corps of Engineers (USACE) promulgated a new definition of the term "waters of the United States" through an agency

³⁵ Id. at 43,587.

¹ Nat'l Ass'n of Mfrs. v. Dep't of Def., 138 S. Ct. 617, 634 (2018).

² Id.

^{3 33} U.S.C. § 1311(a) (2012).

⁴ Id. § 1362(7).

⁵ Rapanos v. United States, 547 U.S. 715 (2006).

regulation known as the "WOTUS Rule." The general objective of the WOTUS Rule was to provide clarity on these Agencies' interpretation of the term "waters of United States," and, therefore, the scope of the Agencies' regulatory jurisdiction under the CWA. Notably, the WOTUS Rule's preamble expressly stated that it "does not establish any regulatory requirements" and is instead "a definitional rule that clarifies the scope of" the statutory term "waters of the United States." Once promulgated, the WOTUS Rule was contested by a number of states, private parties, and environmental organizations.

Under 33 U.S.C. § 1369(b)(1), the USCA holds original and exclusive jurisdiction to hear challenges to seven enumerated categories of EPA actions.⁹ All other challenges outside of those seven categories are generally governed pursuant to the Administrative Procedure Act, which orders appeals of final agency actions to USDCs.¹⁰

Relevant to this case, the National Association of Manufacturers challenged the WOTUS Rule in USDCs throughout the nation, including this case, whereas other parties filed petitions for review in various USCAs to preserve their challenges in the event the district court suits were dismissed for lack of jurisdiction.¹¹ The various appellate cases were consolidated and transferred to the Sixth Circuit in 2015, while parallel actions in the USDCs continued.¹² The National Association of Manufacturers intervened as a respondent in the Sixth Circuit, and together with several other parties moved to dismiss for lack of jurisdiction.¹³ The Department of Defense (DOD) and the EPA opposed the motions, asserting that such challenges must be brought in the USCAs because the WOTUS Rule fell within subparagraphs (E) and (F) of § 1369(b)(1).¹⁴ The Sixth Circuit denied the motions to dismiss.¹⁵

On October 9, 2015, the Sixth Circuit ordered a nationwide stay of the WOTUS Rule pending further proceedings. ¹⁶ In February 2016, a split panel of the Sixth Circuit ruled that challenges to the WOTUS Rule must be made directly to federal appellate courts, rather than district courts. ¹⁷ On January 13, 2017, the Supreme Court granted certiorari on the jurisdictional issue in this case. ¹⁸

⁶ Clean Water Rule: Definition of Waters of the United States, 80 Fed. Reg. 37,054, 37,054 (June 29, 2015) (to be codified at 40 C.F.R. pts 110, 112, 116, 117, 122, 230, 232, 300, 302, and 401).

⁷ Id. at 37,102.

⁸ Id. at 37,054.

^{9 33} U.S.C. §1369(b)(1).

¹⁰ Nat'l Ass'n of Mfrs. v. Dep't of Def., 138 S. Ct. 617, 623 (2018).

¹¹ Id. at 627.

¹² Id.

¹³ Id.

¹⁴ Id.

¹⁵ Id.

Ohio v. Army Corps of Eng'rs (In re EPA & DOD Final Rule), 803 F.3d 804, 807 (6th Cir. 2015).

Murray Energy Corp. v. Dep't of Def. (In re EPA & DOD Final Rule), 817 F.3d 261 (6th Cir. 2016).

¹⁸ Nat'l Ass'n of Mfrs. v. Dep't of Def., 137 S.Ct. 811 (2017).

SUPREME COURT'S OPINION

In a unanimous opinion authored by Justice Sotomayor, the Court rejected the government's arguments that the WOTUS Rule fell into either of two categories of agency action that are within a USCA's exclusive jurisdiction under the CWA: (1) approval or promulgation of "any effluent limitation or other limitation" or (2) issuance or denial of an NPDES permit under § 1342.¹⁹

With respect to § 1369(b)(1)(E), the Court held that that the WOTUS Rule is not an "effluent" or "other limitation" similar in kind to a limitation related to the discharge of pollutants.²⁰ The Court explained that a common characteristic between the effluent and other limitations under the CWA is that they call for limitations on the discharge of pollutants.²¹ Therefore, the Court reasoned, "an 'other limitation,' at a minimum, must also be some type of restriction on the discharge of pollutants. Because the WOTUS Rule does no such thing, it does not fit within the 'other limitation' language of subparagraph (E)."²²

As to § 1369(b)(1)(F), the Court held that a plain reading of the CWA's jurisdictional provision precluded holding that the WOTUS Rule constitutes an issuance or denial of an NPDES permit.²³ The Court rejected the government's argument that the Rule was "functionally similar" to the issuance or denial of permits on the ground that the Rule set the geographical limits of the EPA's permitting authority and therefore determined if permits may be issued.²⁴ The Court explained that, while "the WOTUS Rule may define a jurisdictional prerequisite of the EPA's authority to issue or deny a permit, the Rule itself makes no decision whatsoever on individual permit applications."²⁵

The Court remanded the case to the Sixth Circuit with instructions to dismiss the petitions for review for lack of jurisdiction.²⁶

LOOKING TO THE FUTURE

The Court's Opinion in *Nat'l Assn. of Mfrs.* will undoubtedly impact future litigation over the WOTUS Rule. As a practical matter, this holding will enable litigants challenging the Rule to bring parallel petitions in USDCs throughout the country, possibly resulting in both forum shopping, at a minimum, and inconsistent rulings. Therefore, it is plausible that the question of what may be regulated under the CWA as "waters of the United States" may very well depend on location. On the other hand, the decision also brings clarification for litigants raising similar challenges under the CWA. Previously, parties often filed in both district and appellate courts to preserve their challenges, should their lawsuits in either forum be dismissed for lack of jurisdiction. The Court's decision now clears the path for challenges to the WOTUS Rule to proceed in USDCs while ending years of jurisdictional confusion.

¹⁹ Nat'l Ass'n of Mfrs., 138 S. Ct. at 634; 33 U.S.C. §1369(b)(1)(E)–(F) (2012).

²⁰ Nat'l Ass'n of Mfrs., 138 S. Ct. at 628.

²¹ Id. at 629.

²² Id.

²³ Id. at 631.

²⁴ Id. at 632.

²⁵ Id.

²⁶ Id. at 634.

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PUBLICATIONS

REVIEW OF ALEXANDRA B. KLASS & JIM ROSSI, *RECONSTITUTING THE FEDERALISM BATTLE IN ENERGY TRANSPORTATION*, 41 HARV. ENVTL. L. Rev. 423 (2017)

In Reconstituting the Federalism Battle in Energy Transportation, Alexandra B. Klass and Jim Rossi explore the historical delegation of approval authority for interstate natural gas pipelines and interstate electric transmission pipelines, and the subsequent federalism tensions created by "efforts to expand the nation's energy transportation infrastructure." To "evaluate how reforms to the governmental approval process for energy transport projects can result in more efficient decision making," they examine "two controversial energy transport projects" in the interstate natural gas pipeline siting and the interstate electric transmission line siting: the Constitution Pipeline project and the Plains & Eastern Clean Line project.²

HISTORICAL DEVELOPMENTS IN SITING AUTHORITY

Klass and Rossi begin by noting that the regulatory approval structures and processes for building natural gas pipelines and electric transmission lines differ.³ This difference is primarily attributable to historic reasons.⁴

The discovery of "large natural gas reserves" by the early 1920s and the "growth (as well as consolidation) of the natural gas industry" gave rise to "[c]oncerns about monopoly power in the natural gas industry." These concerns "led Congress to adopt the Natural Gas Act of 1938," creating federal regulatory authority in the Federal Power Commission (FPC)⁶ and "establish[ing] a federal process . . . for the approval and siting

¹ Alexandra B. Klass & Jim Rossi, Reconstituting the Federalism Battle in Energy Transportation, 41 Harv. Envtl. L. Rev. 423 (2017).

² Id.

³ Id. at 430.

⁴ Id.

⁵ Id.

The FPC was the predecessor to the Federal Energy Regulatory Commission (FERC). *Id.* at 425.

of interstate natural gas pipelines." This federal power was further strengthened when Congress transferred eminent domain authority from the states to the FPC when states "refused to grant eminent domain authority to interstate natural gas pipelines delivering gas to the East Coast." The result of the Natural Gas Act of 1938 and subsequent caselaw is that the Federal Energy Regulatory Commission (FERC) "has plenary authority over siting and eminent domain for interstate natural gas pipelines and associated infrastructure." Accordingly, the states are left with "minimal authority over those projects" and are primarily relegated to intervenor status. However, growing concern over the environmental impact of natural gas and oil pipelines, as well as the general use of fossil fuels, has led "to new legal efforts to create cracks in the federal process attempting to streamline new natural gas transport infrastructure."

The history of siting and eminent domain regarding electric transmission lines "is quite different from that of interstate natural gas pipelines" and exhibits "an institutional bias in favor of states rather than the federal government in project siting."¹³ While Congress was creating regulatory authority for interstate natural gas pipelines, "[m]ost [electric] transmission lines were fairly localized and owned by state regulated public utilities."¹⁴ Because electric generating plants "did not require electric transmission lines that crossed multiple state borders," since they could be constructed near cities, "there was no real need in the early part of the twentieth century for private, investor owned utilities to build long-distance transmission lines that crossed multiple states."¹⁵

As a result, "[by] the latter part of the twentieth century, the conventional framework for energy transportation infrastructure siting reflected a clear division of authority." With some exceptions, "federal law . . . governed siting and eminent domain for interstate natural gas pipelines and state law was the primary vehicle for addressing siting and eminent domain for interstate electric transmission lines." ¹⁷

Klass and Rossi argue that it was not until the latter half of the twentieth century "that pressure began to build on the interstate electric grid, and the limitations of leaving interstate electric transmission line siting and eminent domain authority to the states became more evident." Several factors have created new incentives to construct "long

⁷ Id. at 430.

Id. at 430–31; see Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 Iowa L. Rev. 947, 994–99 (2015) (discussing the transfer of authority over interstate natural gas pipeline siting and eminent domain from the states to the FPC in 1947).

⁹ See Schneidewind v. ANR Pipeline Co., 485 U.S. 306–08 (1988) (confirming that the Natural Gas Act preempts state law).

¹⁰ Klass & Rossi, supra note 1, at 432.

¹¹ *Id.* ("[S]tates can participate in the certificate process and appeal to the courts in the event of a decision adverse to state interests, but cannot generally override the grant of a certificate.").

¹² Id. at 435.

¹³ Id. at 435–46.

¹⁴ Id. at 436–37.

¹⁵ Id. at 437.

¹⁶ Id. at 444.

¹⁷ Id.

¹⁸ Id. at 438.

distance, high-voltage transmission lines to bring renewable energy to population centers." Nevertheless, some state actors have favored lines that primarily service in-state needs while rejecting interstate lines that were designed to serve national or out-of state needs. Consequently, "just as changes in attitudes toward natural gas pipelines have created new pressures on FERC to take state concerns into account in the natural gas pipeline siting process," similar pressures have been building in the opposite direction with regard to interstate electric transmission lines "to better recognize federal and regional electricity needs against the backdrop of a state based siting process." The result: by the latter half of the twentieth century, the conventional natural gas (federal) electric transmission (state) division of authority had begun to unravel.²²

SUBSEQUENT DEVELOPMENTS

An example of this unraveling in natural gas pipeline siting is § 401 of the Clean Water Act (CWA),²³ which "grants states the power to ensure that projects that require federal CWA permits meet state water quality standards by essentially giving states veto power over projects that may threaten the state's water supply."²⁴ Similarly, under the Clean Air Act (CAA),²⁵ "natural gas projects must obtain federal and state permits for compressor stations and other natural gas transport infrastructure."²⁶

In interstate electric transmission, federal authority was increased by the passage of § 1221 of the Energy Policy Act of 2005 (EPAct 2005),²⁷ which gave FERC "backstop siting authority."²⁸ Under the EPAct 2005, the U.S. Department of Energy (DOE) was directed to "study electric transmission congestion," and "designate certain transmission corridors with congestion problems as 'national interest electric transmission corridors' (NIETCs)."²⁹ After the DOE had made this designation, "FERC was authorized to issue construction permits for lines designed to ease congestion if states did not authorize the lines under certain circumstances."³⁰ However, some federal courts have construed this authority quite narrowly,³¹ "rendering § 1221 effectively inert."³²

Additionally, § 1222 of the act "grants authority to two federal [power marketing administrations (PMAs)] covering multiple states in the West and Southwest—(WAPA) and (SWAPA) respectively—to design, construct, or operate a new electric power transmission project within any state in which they operate" upon the DOE's

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19 Id. at 440.
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²⁰ Id. at 441.

²¹ Id. at 444.

²² Id. at 445.

^{23 33} U.S.C. § 1341(a) (2012).

²⁴ Klass & Rossi, supra note 1, at 446.

^{25 42} U.S.C. § 7401 et seq. (2012).

²⁶ Klass & Rossi, supra note 1, at 450.

^{27 16} U.S.C. § 824p(a) (2012).

²⁸ Klass & Rossi, supra note 1, at 453.

²⁹ Id.

³⁰ Id.

See Piedmont Envtl. Council v. Fed. Energy Regulatory Comm'n, 558 F.3d 304, 309–10 (4th Cir. 2009); see also Cal. Wilderness Coal. v. Dep't of Energy, 631 F.3d 1072, 1079 (9th Cir. 2011).

³² Klass & Rossi, supra note 1, at 454.

determination that "the project will reduce congestion of electricity transmission, is needed to accommodate increased electric transmission capacity, and meets other requirements." ³³

Klass and Rossi call these developments "[c]racks in the [f]oundation" of the conventional framework of energy transportation infrastructure siting.³⁴ They argue that the result of these developments is that "federal agencies had growing incentives to use what existing authority they had to 'override' state siting decisions perceived as harming national goals of facilitating the efficient delivery of the nation's electric energy," while "states had similar incentives to push back against natural gas pipeline projects perceived as having adverse environmental impacts on the states."³⁵ Klass and Rossi then focus on The Constitution Pipeline and The Plains & Eastern Clean Line as two examples of how "federalism battles" have recently played out in natural gas pipeline siting and interstate electric transmission line siting.³⁶

THE CONSTITUTION PIPELINE

The Constitution Pipeline was intended to transport natural gas from Pennsylvania to Schoharie, New York.³⁷ FERC granted a certificate to construct the \$683 million pipeline in December 2014.³⁸ The issuance of the certificate was a culmination of an environmental review process that lasted more than two years.³⁹ The review considered "the impacts of the pipeline's construction and operation on New York's geology, water bodies, wetlands, forests, migratory birds, bats, property values, and public safety, as well as induced development of natural gas production, cumulative impacts, and alternatives."⁴⁰ FERC found that the benefits "the [projects] will provide to the market outweigh any adverse effects," though it acknowledged that "the projects will result in some adverse environmental impacts," which could be mitigated.⁴¹ Conditions to the certificate approval included Constitution relocating a part of the project as well as agreeing "to fund \$18 million for wetland mitigation and banking, as well as approximately \$8.6 million for the restoration and preservation of migratory bird habitats."⁴²

Though initially the pipeline was expected to be in service in 2015, in 2016, "the New York Department of Environmental Conservation refused to issue a permit for Constitution's project under § 401 of the CWA."⁴³ According to Klass and Rossi, the example of the Constitution Pipeline indicates, among other things, that "FERC and project proposers may need to think more proactively about how they can better integrate state

³³ *Id.* at 455–56; see 42 U.S.C. § 1642(a) (2012).

³⁴ Klass & Rossi, supra note 1, at 444.

³⁵ Id. at 458.

³⁶ See id. at 458–70.

³⁷ Id. at 458.

³⁸ Id.

³⁹ Id. at 459.

⁴⁰ Id.

⁴¹ Id. at 458–59 (quoting Constitution Pipeline Co., LLC, 149 FERC at 62,203, 62,213).

⁴² Id. at 459.

⁴³ Id. at 460.

environmental concerns into its certificate process so as to soften the effect of state veto points over energy infrastructure projects."44

THE PLAINS & EASTERN CLEAN LINE PROJECT

Clean Line Energy Partners' Plains & Eastern Clean Line project is an interstate electric transmission line designed to deliver "primarily renewable energy from Oklahoma and Texas to the southeastern United States." As part of the project, Clean Line applied for state approval in Oklahoma and Arkansas. While Oklahoma eventually granted the request, Arkansas denied Clean Line's application in 2011, determining that "Clean Line could not obtain public utility status in the state." Earlier, in July 2010, Clean Line Energy Partners submitted its application under § 1222 of EPAct 2005. In March 2016, the DOE "exercised its authority [under § 1222] for the first time in approving Clean Line Energy Partners' Plains & Eastern Clean Line project." The DOE's Summary of Findings "has an extensive evaluation of both regional and in-state impacts of the project" including "a broad discussion of economic, landowner, and environmental impacts in the states of Arkansas and Oklahoma." The aforementioned evaluation is "highly relevant" to the DOE. This is because in its original request for proposal (RFP), the DOE listed the factors that it, as well as the PMA (in this case SWAPA), would look to in its evaluation of a project under § 1222.

The DOE's Summary of Findings discussed how Clean Line's proposal "met all of the § 1222 statutory factors." It outlined the conditions of the agreement with Clean Line, including the "DOE assisting with right-of-way acquisition and exercising eminent domain authority when necessary" as well as the "DOE . . . [owning] all the project facilities in Arkansas, [while] all costs of these facilities, like all costs of the project, would be borne by Clean Line." Klass and Rossi posit that the DOE's Summary of Findings in the Clean Line project "represents a potential new approach to striking a federalism balance between the federal government and the states in the controversial area of interstate electric grid expansion." 55

⁴⁴ Id. at 463.

⁴⁵ *Id.* at 465.

⁴⁶ Id. at 466.

⁴⁷ Id.

⁴⁸ Id. at 465.

⁴⁹ Id. at 464.

⁵⁰ Id. at 470.

⁵¹ Id.

⁵² *Id.* at 464–65. Those factors include: "[1] whether the project is in the public interest; [2] whether the project will facilitate the reliable delivery of power generated by renewable resources; [3] an evaluation of the benefits and impacts of the project in each state it traverses, including economic and environmental factors; [4] whether the project is technically viable, considering engineering, electric, and geographic factors; and [5] whether the project is financially viable." *Id.* (citing Request for Proposals for New or Upgraded Transmission Line Projects Under Section 1222 of the Energy Policy Act of 2005, 75 Fed. Reg. 32,940 (June 10, 2010)).

⁵³ Id. at 468.

⁵⁴ Id. at 468.

⁵⁵ Id. at 470.

LESSONS FOR THE FUTURE

Klass and Rossi present the foregoing examples of the Constitution Pipeline and the Clean Line Energy Partners' Plains & Eastern Clean Line project as vehicles for "exploring contemporary federalism disputes in energy transportation and evaluating approaches to resolving them." They argue that the disputes surrounding these projects "illustrate that the focus on using either federal or state law solutions to resolve these disputes simply misses the mark." Rather, a more collaborative approach in energy transmission siting "may help to move energy transportation debates beyond the impasse that has plagued conventional debates surrounding energy siting."

In interstate electric transmission, "recognizing the significance of state interests in approving new interstate energy transportation processes" like the DOE did in the Clean Line project "has significant promise in overcoming jurisdictional impasses over the siting for new electric transmission infrastructure." by recognizing "how any project presents both benefits and harms to each affected state," state regulators may be better integrated into federal siting processes. Further, this approach can "reduce the likelihood of conflict if a federal regulator decides to exercise preemption authority, including eminent domain." Early collaboration and "fuller evaluation of environmental and economic issues of interest to both federal and state permitting entities and stakeholders . . . may . . . allow for route changes, mitigation measures, and structured discussion among stakeholders and state and federal permitting entities . . . can reduce post permitting vetoes or legal challenges." Additionally, when agencies take an approach similar to the DOE's § 1222 process, they may "expect courts to be more deferential to their ultimate decisions involving project siting."

Similarly, "FERC's natural gas pipeline siting determinations could also benefit from earlier and more substantive integration of state interests in its analysis." Under the current approach, "FERC does not systematically invite state environmental regulators to share their expertise and judgment on the record in federal pipeline certification decisions," and the timing of the process invites regulators "to sit back and let FERC decide the locational issues without fully addressing environmental concerns, inviting eleventh hour state veto points in CWA permits that conflate siting and environmental issues and have no ready resolution." 65

Klass and Rossi argue that one way to resolve the above problems is "for FERC to model its review of gas pipeline routing applications after DOE's consideration of state interests in approving Clean Line's § 1222 application." FERC could then "improve the quality of environmental evaluation of a project by incorporating input from state

⁵⁶ Id. at 428.

⁵⁷ Id.

⁵⁸ Id. at 473.

⁵⁹ Id. at 474.

⁶⁰ Id. at 475.

⁶¹ Id.

⁶² Id. at 476.

⁶³ Id. at 479.

⁶⁴ Id.

⁶⁵ Id. at 480.

⁶⁶ Id.

environmental regulators into the federal assessment of a project's impact."⁶⁷ FERC could also employ other improvements to its siting process, such as "withhold[ing] final determination of a proposed pipeline's routing pending a state environmental regulator's initial decisions regarding CWA permits."⁶⁸

Klass and Rossi argue that approaches like those listed above "can reduce . . . federalism conflicts . . . without requiring either states or the federal government to cede authority." Knowledge on the part of state regulators that "federal regulators were likely to evaluate their findings regarding environmental and land use harms" might encourage "present[ation of] better evidence to federal regulators in the certificate and federal environmental review process," instead of "sit[ting] back and wait[ing] to raise evidence supporting objections to a project as part of state environmental review following [federal] certificate approval." Thus, situations like New York's denial of Constitution Pipeline's permit two years after FERC had granted certification might be avoided.

In either case, "[m]odest agency-led procedural reforms can help reconstitute energy permitting struggles towards improved federal-state dialogue and better-quality energy permitting decisions, and away from protracted legal wrangling over federal versus state jurisdiction."⁷¹

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SOLID WASTE

FUNDING SUPERFUND UNDER THE TRUMP ADMINISTRATION

INTRODUCTION

This Development addresses the direction the Trump Administration has taken with federal Superfund support. Relative to the Obama Administration, the Trump Administration has allocated less federal money to implementing the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or "Superfund") but dedicated more agency time to the cause. The Trump Administration's budget policies of reducing government spending and prioritizing national defense¹ resulted in proposals to

⁶⁷ Id. at 481.

⁶⁸ Id. at 483.

⁶⁹ Id. at 487.

⁷⁰ Id.

⁷¹ Id. at 492.

See Budget & Spending, White House, https://www.whitehouse.gov/issues/budget-spending (last visited May 1, 2018) ("With our national debt well above \$20 trillion, now is the time

cut the EPA's 2019 budget by 34% compared to the enacted 2017 budget.² There is a strong positive correlation between Superfund funding and timely remediation.³ But, this is counteracted by the increased bandwidth the EPA has to tackle Superfund issues due to the agency's narrowed scope: ". . .Superfund and the EPA's land and water clean, up efforts will be restored to their rightful place at the center of the agency's core mission."⁴

This Development explores these opposing forces. First, we provide an overview of proposals making federal funds available to Superfund. Next, we summarize actions the EPA has taken concerning Superfund. The idea is that increased agency efficiency will decrease the need for agency funding.

FINANCIAL SUPPORT

The EPA's allocations to Superfund have decreased from \$1,094,169,000 in 2016 to \$762,063,000 in 2018.5 Specifically, between 2016 and 2018, funds allocated for cleanup decreased from \$780,003,100 to \$515,784,000, compliance monitoring decreased from \$844,100 to \$605,000, audits, evaluations, and investigations decreased from \$8,975,400 to \$3,900,000,6 and enforcement decreased from \$169,640,100 to \$99,287,000—with federal facilities enforcement completely eliminated.7 For 2019, the proposed allocation is \$762 million to the Hazardous Substance Superfund account "to address the release of hazardous substances and the cleanup of hazardous waste sites." An addendum to the budget proposed an additional \$327 million, mostly for the account's Superfund Remedial program to "advance the cleanup and reuse of contaminated sites on the National Priorities List." Thus, under the Trump Administration, Superfund is still a high priority

to reverse the trend of climbing government spending. The President's federal budget commits to restraint while prioritizing funding to rebuild our national defense and strengthen America's borders.").

U.S. Office of Mgmt. & Budget, Efficient, Effective, Accountable: An American Budget 103 (2018) [hereinafter Proposed Presidential Budget for FY 2019] (requesting \$5.4 billion for the EPA). In contrast, the 2018 omnibus froze EPA funding at the enacted 2017 level of \$8.1 billion. H.R. 3354, 115th Cong, (2018) (enacted).

See, e.g., Dana Lyons, Trump Budget Cuts Signal Increased Delays to Superfund Site Cleanups, GEO. ENVTL. L. REV. ONLINE, Apr. 4, 2017 ("The [GAO] found inadequate funding led to a decline in the number of remedial action completions. Between 1999 and 2013, approximately one-third of ready to start Superfund sites were delayed because of the decline in funding.").

⁴ Memorandum from E. Scott Pruitt, Adm'r, Envtl. Prot. Agency, to Deputy Adm'r, Gen. Counsel, Assistant Adm'rs, Inspector Gen., Chief Fin. Officer, Chief of Staff, Assoc. Adm'rs, & Reg'l Adm'rs, Envtl. Prot. Agency 1 (May 22, 2017) [hereinafter Prioritizing the Superfund Program].

⁵ ENVTL. PROT. AGENCY, EPA-190-K-17-001, FY 2018 EPA BUDGET IN BRIEF 41 (2017). The figures represent the enacted FY 2016 amount and the FY 2018 presidential budget amount.

⁶ Id. at 37–38.

⁷ Id. The figures represent FY 2016 actuals and FY 2018 budget amounts.

⁸ Id. at 104.

⁹ Letter from Mike Mulvaney, Dir., Office of Mgmt. & Budget, to Paul D. Ryan, Speaker, House of Representatives 18 (Feb. 12, 2018). The addendum would provide an additional

relative to other environmental issues, such as climate change and pollution, whose programs were eliminated in the 2019 budget proposal.¹⁰

Although the budget proposal contemplates a relative decrease in Superfund appropriations, the infrastructure plan makes funds appropriated for other programs available to Superfund. For example, one proposed provision would establish an incentive program that makes \$100 billion of federal grant money available to states, localities, and private sponsors for government infrastructure investments—including Superfund sites—that meet certain criteria. Another proposed provision would make federal loans available for Superfund cleanups under the Water Infrastructure Finance and Innovation Act (WIFIA) by "[b]roadening eligibility . . . to include remediation of water quality contamination by non-liable parties at Brownfield and Superfund sites. If implemented, this proposal could make available \$1 billion in direct loans that would be supported by the WIFIA credit subsidy contemplated in the budget proposal.

Another significant proposal under the infrastructure plan is a revolving loan fund and grant program for Superfund sites.¹⁵ Currently, brownfield sites may be eligible for "direct [federal] funding for Brownfields assessment, cleanup, revolving loans, and environmental job training."¹⁶ However, excluded from the definition of "brownfield site," and thus brownfield site funding, are National Priorities List (NPL) facilities, proposed NPL facilities, potential NPL facilities, and facilities subject to planned or ongoing removal actions under Superfund.¹⁷ The significance of this carve-out is that NPL sites, which are "the most serious sites identified for long-term cleanup," fester as financing and funds are allocated to less serious, short-term cleanups. The infrastructure plan proposes expanding the brownfield site definition to allow NPL sites or portions thereof to

^{\$724} million to the EPA. *Id.* The other \$397 million would "support investment in wastewater and storm water infrastructure." *Id.*

President Trump's Fiscal Year 2019 Budget Proposal — Live Analysis, Wall Street J., https://www.wsj.com/livecoverage/trumps-2019-budget-proposal-live-analysis (last updated Feb. 12, 2018).

The Infrastructure Plan proposes various changes to the Superfund program. White House, Legislative Outline for Rebuilding Infrastructure in America 33–34 (2018) [hereinafter Infrastructure Plan] (suggesting provisions that: provide relief for states and municipalities acquiring contaminated property through actions as sovereign governments; provide EPA with express settlement authority to enter into administrative agreements; and integrate cleanup, infrastructure, and long-term stewardship needs by creating flexibility in funding and execution requirements). But this article focuses on proposals that directly relate to funding.

¹² Id. at 3.

¹³ Id. at 12.

¹⁴ Proposed Presidential Budget for FY 2019, supra note 2, at 104.

¹⁵ Infrastructure Plan, supra note 11, at 32.

Types of Brownfields Grant Funding: Summary of Grant Funding, ENVTL PROT. AGENCY, https://www.epa.gov/brownfields/types-brownfields-grant-funding (last updated July 16, 2018); see 42 U.S.C. § 9604(k) (2012) (describing Brownfields revitalization funding). Generally, a "brownfield site" refers to "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant." 42 U.S.C. § 9601(39).

^{17 42} U.S.C. § 9601(39)(B)(i)–(ii), (41)(C)(i).

be eligible entities to conduct assessments, complete cleanups, and implement remedy enhancements to accommodate development and perform long-term stewardship. This proposal would include areas of the NPL that are not related to the response action; areas that can be parceled out from the NPL response action; areas where the NPL response action is complete but the site has not been delisted yet; or areas where the NPL response action is complete but the facility is still subject to orders or consent decrees under CERCLA. This would be a new Brownfield grant program targeted to Superfund sites.¹⁸

In essence, there would be a Superfund revolving fund.¹⁹

POLITICAL SUPPORT

The Trump's Administration's first EPA Administrator, Scott Pruitt, viewed the Superfund program as "a vital function of the EPA."²⁰ One of his first steps to restoring Superfund to "properly prioritize the Superfund program" was appointing the Superfund Task Force on May 22, 2017.²¹ Pruitt gave the Task Force thirty days to provide him with recommendations "on how the agency can restructure the cleanup process, realign incentives of all involved parties to remediate sites, encourage private investment in cleanups and sites and promote revitalization of properties across the country."²² On July 25, 2017, the Task Force responded with "42 recommendations that can be initiated without legislative changes during the next year."²³ In response to a recommendation to target NPL sites not showing sufficient progress, Pruitt released two "dynamic lists of Superfund sites."²⁴

The EPA released the first list on December 8, 2017. It consisted of Superfund sites Pruitt "targeted for immediate and intense action."²⁵ Specifically, these are "sites requir-

¹⁸ Infrastructure Plan, supra note 11, at 33.

¹⁹ Id.

Prioritizing the Superfund Program, *supra* note 4, at 1; see, e.g., Eli Stokols & Timothy Puko, Scott Pruitt Aims to Accelerate His Efforts to Remake the EPA, WALL STREET J. (Jan. 17, 2018), https://www.wsj.com/articles/scott-pruitt-aims-to-accelerate-his-efforts-to-remake-the-epa-1516220866 ("In 2018, [Pruitt] said he plans to focus on cleaning up toxic sites in the Superfund program and with what he calls the 'war on lead.'").

²¹ Prioritizing the Superfund Program, *supra* note 4, at 1–2.

²² Id. at 2. Pruitt established this deadline within months of his confirmation as EPA Administrator on February 17, 2017. Roll Call Vote 115th Congress – 1st Session, U.S. Senate, https://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=115 &session=1&vote=00071 (last visited Mar. 13, 2018) [hereinafter Roll Call Vote 115th Congress].

²³ Envtl. Prot. Agency, Superfund Task Force Recommendations, at iv (2017).

²⁴ ENVTL. PROT. AGENCY, EPA YEAR IN REVIEW 2017-2018, at 12 (2018) [hereinafter EPA YEAR IN REVIEW 2017-2018].

See Press Release, Envtl. Prot. Agency, EPA Releases List of Superfund Sites Targeted for Immediate, Intense Attention (Dec. 8, 2017), https://www.epa.gov/newsreleases/epa-releases-list-superfund-sites-targeted-immediate-intense-attention [hereinafter EPA Releases List of Superfund Sites Targeted for Immediate, Intense Attention] ("The 21 sites on the list – from across the United States – are in direct response to the Superfund Task Force Recommendations, issued this summer, calling for this list."). But see Sylvia Carignan, Pruitt's New Toxic-Site List Creates Uncertainty for Companies, Bloomberg Law News (Dec. 8, 2017),

ing timely resolution of specific issues to expedite cleanup and redevelopment efforts. The list is designed to spur action at sites where opportunities exist to act quickly and comprehensively."²⁶ Sites on this list "have site-specific issues that will benefit from the Administrator's direct engagement."²⁷ Thus, inclusion on this list may garner "extra attention or directed focus."²⁸ But there "is no commitment of additional funding associated with a site's inclusion on the list."²⁹ The EPA released the second list on January 17, 2018, which consisted of NPL "sites with the greatest expected redevelopment and commercial potential."³⁰ Inclusion on this Superfund Redevelopment Focus List entails the EPA's redevelopment training, tools and resources: "[the] EPA will work with developers interested in reusing these and other Superfund sites; will identify potentially interested businesses and industries to keep them apprised of redevelopment opportunities; and will continue to engage with community groups in cleanup and redevelopment activities to promote the successful redevelopment and revitalization of their communities."³¹ It is unclear whether Pruitt will adopt Task Force Recommendations beyond the list making or whether Pruitt will take meaningful action with regard to the listed sites.

CONCLUSION

On March 5, 2018, the EPA released a report titled EPA Year in Review 2017–2018.³² This report featured the accomplishments of Pruitt's establishment of the Superfund Task Force and release of the two Superfund lists.³³ The report also indicated that "[i]n 2017, [the] EPA completed deletion activities at seven sites on the Superfund NPL in Administrator Pruitt's first year, up from two in 2016."³⁴ But credit for this

https://www.bna.com/epa-release-list-n73014472938/ (reporting that prior to the list's release, senior Superfund advisor Albert Kelly indicated that the parameters differ from those of the task force's recommendations). Pruitt's policies and task force recommendations were directly drawn upon in the proposed budget, which explicitly references the task force's recommendation "to identify impediments to expeditious clean up at sites with significant risks and to bring more private funding to the table for redevelopment." Proposed Presidential Budget for FY 2019, *supra* note 2, at 104–05.

²⁶ EPA Releases List of Superfund Sites Targeted for Immediate, Intense Attention, supra note 25.

Questions and Answers for the Superfund Sites Targeted for Immediate, Intense Action, ENVTL. PROT. AGENCY, https://www.epa.gov/superfund/questions-and-answers-superfund-sites-targeted-immediate-intense-action#6 (last updated July 9, 2018).

²⁸ Id.

Superfund Sites Targeted for Immediate, Intense Action, ENVTL. PROT. AGENCY, https://www.epa.gov/superfund/superfund-sites-targeted-immediate-intense-action (last updated Aug. 3, 2018).

Press Release, Envtl. Prot. Agency, EPA Releases Superfund Redevelopment Focus List (Jan. 17, 2018), https://www.epa.gov/newsreleases/epa-releases-superfund-redevelopment-focus-list.

³¹ Superfund Redevelopment Focus List, ENVTL. PROT. AGENCY, https://www.epa.gov/superfund-redevelopment-initiative/superfund-redevelopment-focus-list (last updated July 27, 2018).

³² EPA Year in Review 2017-2018, ENVTL. PROT. AGENCY, https://www.epa.gov/newsroom/epa-year-review-2017-2018 (last updated Mar. 5, 2018).

³³ EPA YEAR IN REVIEW 2017-2018, supra note 24, at 12.

³⁴ Id. at 13.

accomplishment has been disputed by the Associated Press: "The Environmental Protection Agency is touting cleanups at seven of the nation's most polluted places as a signature accomplishment in the Trump administration's effort to reduce the number of Superfund sites, even though records show the physical work was completed before President Donald Trump took office."³⁵ Superfund is a messy, politicized problem for any administration. The Trump Administration has moved in a bold direction. It is yet unclear whether any negative effects of decreased funding will be counteracted by increased agency attention and efficiency.

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WASHINGTON UPDATE

EPA'S COAL COMBUSTION RESIDUALS RULE: D.C. CIRCUIT RULING AND AGENCY RULEMAKING

INTRODUCTION AND BACKGROUND

Coal-fired electric power plants produce coal combustion residuals (CCRs) each time coal is burned to produce power.¹ These CCRs include various types of by-products that can be recycled and reused in other industries for beneficial uses, such as wallboard, concrete, roofing materials, bricks, and structural fills.² According to the Environmental Protection Agency (EPA), 46 million tons of CCR material were beneficially reused in 2014.³ In the same year, it was estimated that the coal industry generated approximately 130 million tons of CCRs, meaning that 35% of CCRs produced were put to beneficial

Michael Biesecker & Jason Dearen, Superfund Work Touted by Trump EPA Was Completed Years Ago, AP (Jan. 5, 2018), https://apnews.com/501eaf68d3f54f0eb9a90d3f271670c3/Superfund-work-touted-by-Trump-EPA-was-completed-years-ago.

¹ Coal Ash Basics, Envtl. Prot. Agency, https://www.epa.gov/coalash/coal-ash-basics (last updated Apr. 26, 2017) [hereinafter EPA Coal Ash Basics].

² Coal Ash Reuse, Envtl. Prot. Agency, https://www.epa.gov/coalash/coal-ash-reuse (last updated Apr. 12, 2018).

³ Id.

use.⁴ The CCRs that are not beneficially used are generally disposed of either landfills or surface impoundments.

In late December 2008, one of the walls of a surface impoundment containing coal ash from the Tennessee Valley Authority's Kingston Fossil Plant failed, spilling "approximately 5.4 million cubic yards (CYs) of coal ash . . . into Swan Pond . . . eventually spilling out into the main Emory River channel." The Kingston coal ash spill prompted the EPA to "assess coal ash surface impoundments and gather information from facilities managing coal ash nationwide," which then evolved into a rulemaking.

The EPA's Coal Combustion Residuals Rule (the "Rule" or the "CCR Rule") was initially proposed in 2010, and outlined two potential ways to regulate CCRs: either as a hazardous waste under Subtitle C of the Resource Conservation and Recovery Act (RCRA) or as a non-hazardous waste under Subtitle D of RCRA.⁸ After considering hundreds of thousands of public comments, the EPA ultimately signed a final rule in December 2014 (published in April 2015).⁹ The Rule established technical requirements for CCR landfills and surface impoundments under the non-hazardous Subtitle D provisions of RCRA.¹⁰ The EPA claimed that, under the Rule, it did not have authority to directly impose the requirements of the Rule and that state programs would not substitute for those requirements; the requirements would be enforced via citizen suits¹¹ Subsequently, the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016, signed in December 2016, explicitly gave the EPA the authority to review and to approve state CCR permit programs.¹²

It is against this backdrop that we have seen two significant recent developments regarding the Rule: the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) ruling that elements of the Rule were lacking in sufficient stringency; and the EPA's rulemaking to amend the Rule to reduce the stringency of certain components of the Rule.

⁴ EPA Coal Ash Basics, supra note 1.

⁵ EPA Response to Kingston TVA Coal Ash Spill, ENVTL. PROT. AGENCY, https://www.epa.gov/tn/epa-response-kingston-tva-coal-ash-spill (last updated Dec. 23, 2016).

⁶ Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities, ENVTL. PROT. AGENCY, https://www.epa.gov/coalash/coal-ash-rule (last updated July 30, 2018).

⁷ Id

⁸ Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities, Proposed Rule, 75 Fed. Reg. 35,128 (June 21, 2010).

⁹ Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities, Final Rule, 80 Fed. Reg. 21,302 (Apr. 17, 2015).

Frequent Questions about the Coal Ash Disposal Rule: 6. What is EPA's final rule on coal ash?, ENVTL. PROT. AGENCY, https://www.epa.gov/coalash/frequent-questions-about-coal-ash-disposal-rule (last updated Feb. 9, 2017).

¹¹ Id

Permit Programs for Coal Combustion Residual Disposal Units, Envtl. Prot. Agency, https://www.epa.gov/coalash/permit-programs-coal-combustion-residual-disposal-units (last updated Jan. 4, 2018).

D.C. CIRCUIT'S RULING AGAINST ELEMENTS OF THE RULE

On August 21, 2018, the D.C. Circuit reached its decision regarding industry and environmental group challenges to the CCR Rule in *Utility Solid Waste Activities Group v. Environmental Protection Agency (USWAG v. EPA)*.¹³ The case was formally filed and consolidated in mid-2015 (shortly after finalization of the Rule). Shortly before the oral argument scheduled for November 20, 2017, the EPA moved to delay oral argument and hold the case in abeyance while the EPA proceeded with a reconsideration of the Rule under new authority granted to the EPA under the WIIN Act.¹⁴ Ultimately, the D.C. Circuit heard the oral argument without delay, considered the EPA's abeyance request for abeyance, and did not grant the abeyance.¹⁵ In its August 21, 2018 ruling, the D.C. Circuit partially granted the EPA's remand motion and granted, in part, the environmental groups' (referred to by the D.C. Circuit as the "Environmental Petitioners") petitions. The D.C. Circuit denied industry groups' petitions.

Central to the Environmental Petitioners' claims was the statutory provision that any landfills regulated under Subtitle D of RCRA "shall provide that a facility may be classified as a sanitary landfill and not an open dump only if there is no reasonable probability of adverse effects on health or the environment from disposal of solid waste in such a facility." The Environmental Petitioners' argued that certain provisions of the Rule would result in "reasonable probability of adverse effects" on health and the environment. The D.C. Circuit agreed with many of these Environmental Petitioner claims.

Specifically, the D.C. Circuit found that the following provisions of the CCR Rule were legally insufficient:

• Unlined Surface Impoundments. The D.C. Circuit found that the evidence did not support the EPA's conclusion that composite liners would be required for new surface impoundments in order to meet the "no reasonable probability" standard, while existing, unlined surface impoundments could meet the "no reasonable probability" standard. The Court added that the Rule's "approach of relying on leak detection followed by closure is arbitrary and contrary to RCRA," as it "does not address the identified health and environmental harms documented in the record, as RCRA requires. The Court went on to add that the "EPA has not shown that harmful leaks will be promptly detected; that, once detected, they will be promptly stopped; or that contamination, once it occurs, can be remedied. Based on this and other criteria, the Court concluded that these unlined CCR impoundments did not meet the criteria for "sanitary landfills" regulated under Subtitle D. The Court vacated this portion of the Rule regard-

^{13 901} F.3d 414 (D.C. Cir. 2018).

¹⁴ Id. at 425-426.

¹⁵ *Id.* at 426. The D.C. Circuit "le[ft] it open for the EPA to address on remand the relevance of the WIIN Act." *Id.*

¹⁶ *Id.* at 420, citing to 42 U.S.C. § 6944(a) (emphasis added).

¹⁷ Id.

¹⁸ Id. at 429.

¹⁹ Id.

²⁰ Id. at 430.

ing continued operation of unlined CCR disposal units and remanded it to the EPA for additional consideration.²¹

- Liner Type Criteria and Clay Lined Surface Impoundments. The CCR Rule allowed existing CCR surface impoundments to be lined with two feet of compacted soil, and if found to be leaking, an operator could attempt to repair the disposal unit before being forced to close it.²² The Court found that this process could take too long and would not ensure that there was "no reasonable probability" of adverse effects.²³ The Court vacated this section of the Rule to the extent it treated "'clay-lined' units as if they were lined."²⁴
- Legacy Ponds. In the CCR Rule, the EPA proposed to exempt so-called "legacy ponds" from the same degree of requirements of non-legacy ponds. These legacy ponds are inactive impoundments at inactive sites.²⁵ The EPA claimed that, while legacy ponds could pose dangers, it was too difficult to regulate them in the same way.²⁶ The EPA claimed that it was too difficult to identify responsible parties and, therefore, the EPA would only address these ponds after an "'imminent' leakage is detected and reported."²⁷ The D.C. Circuit found this approach to be "unreasoned, arbitrary and capricious," going as far to state that the "EPA's decision to shrug off preventative regulation makes no sense" because the record shows that the EPA is aware of or can feasibly identify responsible parties.²⁸

The Court rejected Environmental Petitioners' challenges to the Rule's notice requirements, because the Environmental Petitioners never made these critiques during the rulemaking for the Rule – a requirement of administrative law.²⁹

The Court rejected the industry petitioner challenges to the Rule, finding that: 1) the EPA has statutory authority to regulate inactive impoundments; 2) the EPA provided sufficient notice of its intention to apply the aquifer location criteria to existing impoundments; 3) the EPA did not arbitrarily issue location requirements based on seismic impact zones; and 4) the EPA did not arbitrarily impose temporary closure procedures.³⁰

The Court granted the EPA's motion for a voluntary remand, remanding to the EPA the provisions in the CCR Rule pertaining to: 1) the definition of "Coal Residuals Piles"; 2) the 12,400-ton beneficial use threshold; and (3) the alternative groundwater protection standards.³¹ The Court denied the EPA's motion to remand the provisions in the

²¹ Id.

²² Id. at 430-431. The Court added: "Even as the Rule requires all newly constructed surface impoundments to be built with composite lining, disapproving any new impoundments lined only with compacted soil, it treats existing impoundments constructed with the same compacted soil and no geomembrane as if they were 'lined.'" Id.

²³ Id. at 431.

²⁴ Id. at 432.

²⁵ Id.

²⁶ Id.

²⁷ Id at 432-433.

²⁸ Id. at 433-434.

²⁹ Id. at 434-435.

³⁰ Id. a 449-450.

³¹ Id. at 450.

Rule pertaining to inactive surface impoundments and landfills at active power plants, and inactive surface impoundments at inactive power plants.³²

RULE AMENDMENTS

Against the backdrop of the D.C. Circuit litigation regarding the CCR Rule, the EPA is in the process of proposing amendments to the CCR Rule. The EPA has announced that it intends to amend the CCR Rule in two phases. While Phase 2 is expected sometime in 2019, Phase I was proposed in March 2018³³ and finalized in July 2018 (Phase I CCR Amendments).³⁴ As stated in the rulemaking, the Phase I CCR Amendments: 1) provide states with approved CCR permit programs under the WIIN Act, or the EPA where the EPA is the permitting authority, the ability to use alternate performance standards (two types of alternative performance standards); 2) revise groundwater protection standards for four specific constituents that do not have an established Maximum Contaminant Level (MCL); and 3) extend the deadline by which facilities must cease the placement of waste in CCR units closing for cause in two situations: a) where the facility has detected a statistically significant increase above a groundwater protection standard from an unlined surface impoundment, or b) where the unit is unable to comply with the relevant aquifer location restriction.³⁵ The Phase I CCR Amendments did not address all provisions outlined in the March 2018 proposal, and the EPA has stated that it intends to address those remaining provisions in a future action.36

Conclusion

At the time of the drafting of this article, it is still not clear the effect that the D.C. Circuit's decision in *USWAG v. EPA* will have on operators of CCR surface impoundments, particularly those operating unlined or clay-lined surface impoundments. It is also not clear what next steps the EPA will take: whether the EPA will appeal the decision or whether it will attempt to address the Circuit Court's findings during remand proceedings and in future rulemakings. However, it is likely the EPA will be required to undertake some degree of action to address the D.C. Circuit's decision, and other components of the Rule the EPA had already intended to address, or there could be numerous CCR impoundments that will be subject to far more burdensome compliance requirements than originally contemplated in the CCR Rule.

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³² Id. at 449.

³³ Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One), Proposed Rule, 83 Fed. Reg. 11,584 (Mar. 15, 2018).

³⁴ Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One), Final Rule, 83 Fed. Reg. 36,435 (July 30, 2018).

³⁵ *Id.* at 36,435.

³⁶ Id.

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WATER RIGHTS

LANDOWNERS' RIGHTS TO HEARING

Introduction

An important legal battle regarding landowners' rights to a hearing in groundwater rights matters in Texas continues as landowners in Bastrop and Lee Counties endeavor to prevent Recharge Water¹ from withdrawing up to 46,000 acre-feet (approximately fifteen billion gallons) of groundwater annually from the Simsboro formation of the Carrizo–Wilcox Aquifer under their properties.

Groundwater rights have been the focus of significant litigation over the past decade. Most notably, the Supreme Court of Texas's ruling in Edwards Aquifer Authority v. Day² clarified landowners' rights to the groundwater beneath their property. Analogizing groundwater to oil and gas, the Court in Day held that landowners have a real property interest in the groundwater beneath their land, explicitly stating that "land ownership includes an interest in groundwater in place." The ongoing dispute in Bastrop and Lee Counties over the Carrizo–Wilcox Aquifer grapples with questions of legal standing for landowners to participate in permitting proceedings when they believe another's proposed groundwater pumping will diminish the groundwater reserves beneath their land.

BACKGROUND: GROUNDWATER LAW IN TEXAS

Historically, Texas operated under the rule of capture with respect to a landowner's right to the water beneath his or her property. In a fundamental rule of capture case, the Texas Supreme Court in Houston & Texas Central Railway Co. v. East held that a landowner could pump an essentially unlimited amount of water from beneath his or her land, regardless of any negative impact on a neighbor's ability to pump water from their own land.⁴ Later case law disallowed maliciously using water with the sole intent to injure a neighbor,⁵ wanton and willful wasting of water,⁶ and negligent pumping of groundwater that harms neighboring properties.⁷ Yet those cases did not displace the Houston & Texas Central Railway Co. case, and the rule of capture remained in place in Texas.

Formerly known as End Op, LP Lost Pines Groundwater Conservation Dist. Bd. Votes 7-1 to Grant Groundwater Permits, RECHARGE WATER (Oct. 20, 2016), http://www.rechargetx.com/news/.

^{2 369} S.W.3d 814 (Tex. 2012).

³ Id. at 817.

⁴ Houston & Tex. Cent. Ry. Co. v. East, 81 S.W. 279, 280 (Tex. 1904).

⁵ City of Corpus Christi v. City of Pleasanton, 276 S.W. 2d 798 (Tex. 1955).

⁶ Id

⁷ Friendswood Dev. Co. v. Smith-Southwest Indus., Inc., 576 S.W.2d 21, 30 (Tex. 1978).

In 1999, the rule of capture was challenged in *Sipriano v*. Great Spring Waters of America, Inc.⁸ In Sipriano, the Texas Supreme Court contemplated replacing the rule of capture with a requirement of reasonable use of groundwater.⁹ The Court ultimately refrained from intervening, however, claiming that it did not want to "insert [itself] into the regulatory mix" by changing the standard for groundwater rights, leaving the issue to the Texas Legislature.¹⁰

Though Texas courts seemed unwilling to deviate from their traditional stance on groundwater rights, significant changes in the state's laws and judicial opinions accompanied the advent of the twenty-first century. With fears of water scarcity, water stress, and the potential termination of water independence, Texas courts were asked to consider the scope of landowners' groundwater rights. In 2008, the San Antonio Court of Appeals held that a landowner could sever the groundwater rights from a surface estate by reserving rights to the groundwater upon conveyance of the surface estate. A few years later, the Texas Legislature amended Chapter 36 of the Water Code to specifically recognize "that a landowner owns the groundwater below the surface of the landowner's land as real property."

These legislative changes occurred while the question of groundwater ownership in place was pending before the Texas Supreme Court in Edwards Aquifer Authority v. Day.¹³ In this much-anticipated decision, the Texas Supreme Court held that "land ownership includes an interest in groundwater in place that cannot be taken for public use without adequate compensation."¹⁴ The decision, combined with revisions to the Texas Water Code, fortified landowners' argument for their ownership interest in the groundwater beneath their property in place.

Applying Groundwater Regulation in the Ongoing Conflict in Bastrop and Lee Counties

Local groundwater conservation districts are "the state's preferred method of ground-water management through rules developed, adopted, and promulgated by a district."¹⁵ The primary way districts manage groundwater is through the process for considering groundwater production and transport permits. Under the Water Code, districts must "require a permit for the drilling, equipping, operating, or completing of wells or for substantially altering the size of wells or well pumps."¹⁶ Districts are expected to consider how the proposed use of water will impact existing water resources and permit holders; whether the proposed extraction will support a beneficial and reasonable use; and whether the proposed water use complements the district's management plan, which

⁸ Sipriano v. Great Springs Waters of Am., Inc., 1 S.W.3d 75 (Tex. 1999).

⁹ *Id.* at 75.

¹⁰ Id. at 80.

¹¹ City of Del Rio v. Clayton Sam Colt Hamilton Tr., 269 S.W.3d 613, 617 (Tex. App.—San Antonio 2008, pet. denied).

¹² Tex. Water Code Ann. § 36.002(a) (West 2018); Act of June 17, 2011, 82nd Leg., R.S., ch. 1207, §36.002, 2011 Tex. Gen Laws 3224 (amending the Texas Water Code).

^{13 369} S.W.3d 814 (Tex. 2012).

¹⁴ Id. at 817.

¹⁵ Tex. Water Code Ann. § 36.0015(b) (West 2018).

¹⁶ Id. at § 36.113.

must be approved at least once every five years. 17 Clearly, the Texas Water Code makes a groundwater conservation district the critical decision maker with respect to the use of groundwater.18

The groundwater conservation district with jurisdiction in Bastrop and Lee counties is the Lost Pines Groundwater Conservation District ("the District"). 19 It is governed by ten citizens appointed by county judges: five each from Bastrop County and Lee County.²⁰ The District is central to the current conflict in Bastrop and Lee counties because of its responsibilities regarding the oversight of the permitting process.

Recharge Water, formerly known as End Op, L.P., first filed applications for groundwater permits with the District in 2007.²¹ The company sought to withdraw 46,000 acrefeet of water annually from fourteen wells in Bastrop and Lee counties.²²

The District placed a moratorium on the applications until January 2013, and a legal conflict developed on May 8, 2013, when three local residents and a non-profit environmental organization, Environmental Stewardship, filed requests for party status to participate in any contested case hearing regarding Recharge Water's applications.²³ This group of protestants (the Landowners) based much of their argument on the Texas Supreme Court's Day opinion, which made it clear that, under Texas law, landowners own the groundwater beneath their land as a vested interest in real property.²⁴ By virtue of their ownership of land within the District boundaries, the Landowners claimed a legal interest at stake in the permit proceeding.²⁵ The Landowners further argued that the potential for "injury in fact" to their legal interest was demonstrated by the Recharge

25 Id.

¹⁷ Edwards Aquifer Authority, 369 S.W.3d at 835.

¹⁸ See id. at 835-36.

¹⁹ About the District, Lost Pines Groundwater Conservation Dist., http://www.lostpineswater. org/27/About-the-District (last visited Oct. 15, 2018).

²⁰ Board of Directors, Lost Pines Groundwater Conservation Dist., www.lostpineswater.org/148/Board-of-Directors (last visited Oct. 15, 2018).

²¹ Applications of Ed Op, LP for Well Registration, Operating Permits, and Transfer Permits, filed with Lost Pines Groundwater Conservation Dist. (2007).

²² Id. The original applications requested the right to pump and transport up to 56,000 acrefeet of groundwater. The amount requested was reduced to 46,000 acre-feet in December of 2013 under the terms of an agreement between the Applicant and Aqua Water Supply Corporation, which protested the application at the administrative hearing.

Bette Brown Request for Party Status, Darwin Hanna Request for Party Status, Andrew Meyer Request for Party Status & Environmental Stewardship Request for Party Status, Application of End Op, LP for Well Registration, Operating Permits, and Transfer Permits (May 8, 2013), SOAH Docket No. 952-13-5210.

Environmental Stewardship, Bette Brown, Andrew Meyer and Darwyn Hanna's Opening Brief on Party Status and Response to Applicant's Initial Brief, Applications of Ed Op, LP for Well Registration, Operating Permits, and Transfer Permits, Application of End Op, LP for Well Registration, Operating Permits, and Transfer Permits, SOAH Docket No. 952-13-5210 (2013). Note that Environmental Stewardship also based its request on its ownership of land in the District adjacent to the Colorado River, the flows of which, it claimed, could be diminished by the proposed groundwater pumping.

Water's own modeling, which showed some drawdown of the Simsboro formation of the aquifer beneath the Landowners' properties.²⁶

On September 25, 2013, an Administrative Law Judge (ALJ) with the State Office of Administrative Hearings (SOAH) issued an order denying party status to the Landowners.²⁷ The ALJ agreed with Recharge Water's argument that the Landowners did not meet the requirement of establishing specific injury due to the fact that none of the members of the party had an active well in the target aquifer.²⁸ Moreover, the injury claimed must not be one that is common to the general public.²⁹ The ALJ found that "(s)ystem wide aquifer drawdown affects the general public (all persons who own rights to the groundwater contained within that aquifer)."³⁰ On September 10, 2014, the District Board rendered a decision consistent with SOAH's order denying the Landowners' request for party status.

On November 7, 2014, the Landowners filed a petition for judicial review with the State District Court in Bastrop County, asking the court to reverse the District's denial of party status.³¹

On May 27, 2016, the Landowners' argument was seemingly bolstered by the Texas Supreme Court's decision in Coyote Lake Ranch, LLC. v. The City of Lubbock.³² The Texas Supreme Court established that the real property rights associated with groundwater are based on the same logic that applies to landowners' ownership of oil and gas.³³ Because the notion that landowners have a real property right to groundwater stemmed from oil and gas law, this Texas Supreme Court decision confirming the application of oil and gas laws and principles to groundwater supported the Landowners' argument.

On September 21, 2016, the District approved and issued permits to Recharge Water.³⁴ Shortly thereafter, the Landowners filed an additional petition for judicial review in Bastrop's 21st Judicial District Court, adding a request that the court reverse the District's decision issuing the permits as well as its denial of their request for party status.³⁵

²⁶ Id. at 9-10.

Order No. 3—Denying Party Status in Part & Granting Party Status in Part, State Office of Admin. Hearings at 1, Applications of End Op, LP for Well Registration, Operating Permits, and Transfer Permits (2013) (SOAH Docket No. 952-13-5210).

²⁸ Id.

²⁹ Tex. Water Code Ann. § 36.415(b)(2) (West 2018).

³⁰ Order No. 3, supra note 27, at 11.

Andrew Meyer, Bette Brown, Darwyn Hanna, and Environmental Stewardship's Petition for Judicial Review, Andrew Meyer, Bette Brown, Darwyn Hanna, and Environmental Stewardship v. Lost Pines Groundwater Conservation District, No. 29,696 (21st Dist. Ct., Bastrop County, Tex. Nov. 7, 2014).

^{32 619} Coyote Lake Ranch, LLC v. City of Lubbock, 498 S.W.3d 53 (Tex. 2016) (finding that the accommodation doctrine of oil and gas law extends to groundwater estates).

³³ Id. at 63.

Order Approving Operating and Transport Permits for End Op, LP, Lost Pines Groundwater Conservation District (Sept. 21, 2016).

³⁵ Andrew Meyer, Bette Brown, Darwyn Hanna, and Environmental Stewardship's Petition for Judicial Review, Andrew Meyer, Bette Brown, Darwyn Hanna, and Environmental Stewardship v. Lost Pines Groundwater Conservation District, End Op, LP, Cause No. 398-335 (21st Dist. Ct., Bastrop County, Tex. Nov. 4, 2016).

On October 18, 2017, the court heard arguments from Landowners and Recharge Water wherein Recharge Water reiterated its argument that the Landowners had no right to party status because none of the members were using wells completed within the Simsboro formation.³⁶

On January 4, 2018, the District Court reversed the District's orders denying party status to the Landowners and issuing permits to Recharge Water, and remanded the matter to the District for proceedings consistent with its decision.³⁷

Both Recharge Water and the District appealed the District Court's ruling. The District's Board claimed that its decision to appeal was based on its desire to protect the public interest and to remain open to the option of a mediated settlement with Recharge Water.³⁸ On August 29, 2018, the Austin Court of Appeals reversed the District Court's ruling on procedural grounds, concluding that the Landowners had not adequately preserved their right to appeal their claim of standing and challenge the District's issuance of the permits to Recharge Water.³⁹

The Landowners filed a Motion for Rehearing on September 13, 2018.⁴⁰ The Motion is based primarily upon the Landowners' argument that an exception to the general requirement for exhaustion of administrative remedies applies in this case because the case implicates constitutional questions, namely, that the Landowners have been deprived of individual property rights.⁴¹ The Landowners argue that, in this case, "the

³⁶ End Op, LP's Response to Plaintiff's Supplemental Brief Regarding Party Status, Andrew Meyer, Bette Brown, Darwyn Hanna, and Environmental Stewardship v. Lost Pines Groundwater Conservation District and End Op, L.P., Cause No. 29,696 (21st Dist. Ct., Bastrop County, Tex. Sept. 5, 2017).

Final Judgment, Meyer v. Lost Pines Groundwater Conservation Dist., Cause No. 29,696 (Jan. 4, 2018).

Mary Huber, Groundwater Dist. Appeals Judge's Ruling for Bastrop Landowners, Austin American-Statesman (Feb. 8, 2018), http://www.statesman.com/news/local/groundwater-district-appeals-judge-ruling-for-bastrop-landowners/c8BiCkqhYY1FMIF1yHnJ9H/ [herein-after Groundwater District Appeals].

End Op, LP and Lost Pines Groundwater Conservation District v. Andrew Meyer, Bette Brown, Darwyn Hanna, and Environmental Stewardship, No. 03-18-00049-CV, 2018 WL 4102013 (Tex. App.—Austin Aug. 29, 2018, pet. filed)(mem. op.) The Court of Appeals held that the Landowners' appeal to the district court from the District's decision was filed prematurely, before all administrative remedies had been exhausted, as the time had not yet expired for the District to act upon their Motion for Rehearing. Because the Landowners did not file again after that date, the district court lacked jurisdiction to hear the appeal regarding party status. Additionally, by statute, judicial review of an order granting a permit application can only be filed by the district, the applicant, and parties to a contested case hearing. (Tex. Water Code § 36.251), and because the Landowners were not parties, they had no standing to appeal that decision. The Legislature's later clarification of the Administrative Procedure Act to address the problem of prematurely-filed appeals came too late to apply in this case [see Act of June 16, 2015, 84th Leg., R.S., ch. 625, § 11, 2015 Tex. Gen. Laws 2058, 2061 (codified at Tex. Gov't Code § 2001.176(a))].

⁴⁰ Appellees Andrew Meyer, Bette Brown, Darwyn Hanna, and Environmental Stewardship's Motion for Rehearing, End Op, LP and Lost Pines Groundwater Conservation District v. Andrew Meyer, Bette Brown, Darwyn Hanna, and Environmental Stewardship, No. 03-18-00049-CV (Tex. App.—Austin, Sept. 13, 2018).

⁴¹ Id

character of the substantive rights protected, especially substantive constitutional rights, must be considered by a court determining what procedure is due."⁴² The Motion for Rehearing remained pending as of mid-October 2018.

CONCLUSION

The history of the conflict between the Landowners, the District, and Recharge Water suggests that one challenge within the battle over groundwater production and permitting is the representation of local interests by the groundwater conservation district. The District maintained that it was acting in its constituents' best interests when appealing the district court's final judgment,⁴³ but some would argue that this widens the disconnect between landowners and their representatives on the boards of groundwater conservation districts, which could result in permits and management plans that do not match the local interests.

As the arguments related to landowners' legal standing in groundwater permitting matters were refined over the course of the proceedings, the fundamental disagreement came down to this: does a landowner's vested property interest in the groundwater in place under his or her property, coupled with evidence that the proposed groundwater production is likely to draw down the water table beneath that property, amount to an actual injury, and if so, is that injury particular enough to that category of persons, or is it common to the general public? Because the Court of Appeals addressed the case on procedural grounds, these questions remain unresolved.

Future disputes may involve different facts that could tilt the balance in favor of landowners. Based on this dispute, for the purposes of determining whether there is an actual injury, and whether that injury is particularized to the landowners, some potentially significant facts may include: whether the landowner has a well or wells on their property (and potentially, whether the well is registered as required with the local groundwater conservation district); whether the landowner has been operating the well; whether the well is completed in the same aquifer formation as those implicated in the permit application; and what evidence exists that drawdown of the aquifer formation will actually occur under the landowner's property. As more Texas courts have the opportunity to opine on the issue of legal standing in groundwater permitting cases under the precedent set by *Day*, perhaps more landowners will seek protect their ownership interests in groundwater.

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⁴² *Id.* at 3 (citing Cf. Mathews v. Eldridge, 424 U.S. 319, 335 (1976) and Cleveland Bd. of Educ. v. Loudermill, 470 U.S. 532, 541 (1985).

⁴³ Groundwater District Appeals, supra note 38.

WATER UTILITIES

Conflicts Over Service Territory—Texas Water Code § 13.255 and 7 U.S.C.A. § 1926(B)

INTRODUCTION

On August 2, 2017, the Fifth Circuit held that the Green Valley Special Utility District ("Green Valley") was entitled to an injunction against the City of Cibolo ("Cibolo" or "City") to prohibit Cibolo from encroaching on its sewer service.¹ Cibolo had applied to provide sewer service to all of Cibolo, which included portions within Green Valley's service area.² In response, Green Valley argued that 7 U.S.C. § 1926(b) protects both its sewer and water service from encroachment.³ The district court dismissed Green Valley's first complaint for failure to state a claim, as it found that only Green Valley's water service was secured by a federal loan, and § 1926(b) was thus inapplicable because Cibolo sought to provide sewer service, not water service.⁴ Green Valley then filed an amended complaint, and Cibolo filed a second motion to dismiss, which the court granted.⁵ Upon appeal, the Fifth Circuit held that the district court's interpretation was inconsistent with the plain language of § 1926(b), which prohibits municipalities from encroaching on services provided by utilities with outstanding loans, and the Court reversed and remanded the district court's holding.6

In contrast, on January 10, 2018, the Public Utility Commission of Texas (PUC) ruled in favor of Cibolo, and granted Cibolo's application to remove approximately 1,694 acres of land located within its corporate limits ("the incorporated area") from Green Valley's certified sewer service and to amend the City's sewer certificate of convenience and necessity (CCN) to include the same land.⁷ On August 18, 2015, Cibolo provided notice to Green Valley of its intent to provide sewer service to areas within its corporate limits.⁸ The City then filed its application on March 8, 2016, under Texas Water Code (TWC) section 13.255 requesting single sewer certification and decertification of the City's incorporated area, to which Green Valley held CCN No. 20973.⁹ After a two-phase hearing before the State Office of Administrative Hearings (SOAH), the SOAH judge recommended that the PUC find that: (1) Cibolo had complied with TWC section 13.255; (2) Cibolo was entitled to single certification of the requested

Green Valley Special Util. Dist. v. City of Cibolo, 866 F.3d 339, 340 (5th Cir. 2017).

² Id.

³ Id. at 341.

⁴ *Id.* at 340–41.

⁵ *Id.* at 341.

⁶ Id.

⁷ Tex. Pub. Util. Comm'n, Application for the City of Cibolo for Single Certification in Inco. Areas and to Certify Portions of Green Valley Special Utility District's Sewer Certificate of Convenience and Necessity in Guadalupe Cty., Docket No. 45702, SOAH Docket No. 473-16-5296 WS, 1, 6 (order granting application) [hereinafter PUC Order].

⁸ Id. at 6.

⁹ Id.

area; and (3) Green Valley had no property that was rendered useless or valueless by the decertification of Green Valley's CCN. The PUC commissioners agreed and granted Cibolo's sewer CCN, and ordered no compensation be paid to Green Valley.¹⁰ Green Valley filed a motion for rehearing with the PUC based upon the Fifth Circuit's ruling on February 2, 2018, which was subsequently denied by operation of law, as no PUC commissioner voted to add the motion for rehearing to an open meeting agenda.¹¹

Background: Federal and State Laws Regulating Water and Sewer Services

Both federal and state laws govern the right to sell water and sewer services in Texas.¹² 7 U.S.C. § 1926(a) "authorizes the USDA to make loans and grants to non-profit associations that provide water and sewer services in rural areas."¹³ Section 1926(b) prohibits municipalities from encroaching on services provided by utilities with outstanding loans.¹⁴ Section 1926(b) states,

The service provided or made available through any such association shall not be curtailed or limited by inclusion of the area served by such association within the boundaries of any municipal corporation or other public body, or by the granting of any private franchise for similar service within such area during the term of such loan. . . $.^{15}$

At the state level, the PUC issues retail public utilities CCNs which "grant exclusive rights to provide water or sewer utility services to a specified geographic area." Furthermore, section 13.225 of the Texas Water Code (TWC) governs single certification in an area incorporated or annexed by a municipality that is currently in the certified service area of certain types of entities, including special utility districts such as Green Valley. TWC section 13.255 provides:

(b) [I]f the municipality desires and intends to provide retail utility service to the area [within its corporate limits], the municipality, prior to providing service to the area, shall file an application with the utility commission to grant single certification to the municipally owned water or sewer utility or to a franchised utility. . . .

¹⁰ *Id.* at 6–16.

See Green Valley's Motion for Rehearing, PUC Order, *supra* note 7 ("The Commission erred by failing to acknowledge that Green Valley's sewer [CCN] area is protected from curtailment pursuant to federal law by virtue of Green Valley's outstanding federal loan. . . and by failing to find that [Cibolo's] application must therefore be rejected."); *see also* No Commissioner Has Voted to Add the Motion for Rehearing to an Open Meeting Agenda, PUC Order, *supra* note 7 (Feb. 7, 2018) ("No commissioner has voted to add the Motion for Rehearing to an open meeting agenda.").

¹² Green Valley Special Util. Dist. v. City of Cibolo, No. A-16-CA-627-SS, 2016 WL 3963224, at *1 (W.D. Tex. July 21, 2016).

¹³ Id.

^{14 7} U.S.C. § 1926(b) (2012).

¹⁵ Id.

¹⁶ Green Valley, 2016 WL 3963224, at *1.

¹⁷ PUC Order, supra note 7, at 1 (citing Tex. Water Code Ann. (TWC) § 13.255 (West 2008)).

- (c) the utility commission shall also determine in its order the adequate and just compensation to be paid
- (g) the standards set forth in Chapter 21, Property Code 18

As such, under TWC § 13.255, the PUC has jurisdiction over both the municipality's application and Green Valley's CCN.¹⁹

FIFTH CIRCUIT AND PUC RULINGS

The Fifth Circuit and PUC came to different rulings based upon statutory interpretation and the different arguments put forth by Green Valley and Cibolo.

THE FIFTH CIRCUIT'S RULING

The Fifth Circuit ruled in favor of Green Valley based upon the plain language of § 1926(b), which prohibits municipalities from encroaching on services provided by utilities with outstanding loans, and it reversed and remanded the case.²⁰ Green Valley had obtained a \$584,000 loan from the United States to fund its water service, and the loan remains outstanding.²¹ While the loan was made to fund its water service, Green Valley argued that § 1926(b)'s protection extended to "any service" made available by a federally-indebted utility.²² As such, Cibolo and Green Valley disputed the meaning of "service."²³ They put forth three interpretations of "service": (1) a noun that refers to a combined water-and-sewer service; (2) a noun that refers to a specific service, either a water or sewer service made available by a federally indebted utility; or (3) a noun that refers to a specific service made available by a federally indebted utility and financed through the federal loan program.²⁴

In ruling in favor of Green Valley, the Court looked at § 1926(b)'s grammar and its intended purposes.²⁵ Green Valley argued for the first two interpretations of "service," while Cibolo argued for the last interpretation of "service."²⁶ Cibolo made three arguments for its interpretation of "service."²⁷ First, Cibolo claimed that "Congress's use of the definite article 'the' before 'service,' combined with the use of singular form of the noun, implies that the statute [refers] to a specific service—the service 'provided or made available by the federal debt,'" which would refer to the water service.²⁸ Second, Cibolo argued that, if Congress meant to protect all services made available by a federally indebted utility, Congress would have used "services" instead of "service" in § 1926(b).²⁹

¹⁸ Tex. Water Code Ann. § 13.255 (West 2017).

¹⁹ PUC Order, supra note 7, at 2.

²⁰ Green Valley Special Util. Dist. v. City of Cibolo, 866 F.3d 339, 340–41 (5th Cir. 2017).

²¹ Id. at 340.

²² Id. at 341.

²³ Id. at 342.

²⁴ Id

See id. at 342–43 (describing the uses of "service" in the statute and the two purposes of § 1926(b)).

²⁶ Id. at 342.

²⁷ Id. at 342-43.

²⁸ Id. at 343 (emphasis added).

²⁹ Id.

Last, it requested the Court to read the § 1926(b) prohibition that "the granting of any private franchise for *similar service* within such area during the term of such loan. . ." in tandem with the prohibition on municipal encroachment in federal indebted utilities' service areas.³⁰ Consequently, "similar service" should be read as "[referring] to a similar variety of a specific service" (e.g. a water service is similar to another water service, and a sewer service is similar to another sewer service); therefore, the statute must apply to municipalities in addition to private entities.³¹

The Court found all these arguments unpersuasive. Regarding Cibolo's first argument, the Court said that Congress's use of "the" in § 1926(b) was consistent with "'service' referring to an integrated water-and-sewer service" and that if "'service' referred to a specific service, it must be possible to read it as referring to more than one service."32 On the second argument, the Court pointed out that none of the references to "services" in \$ 1926(b) specifically described water or sewer services, and "it [was] not evident what conclusions we can draw from Congress's various uses of 'service' and 'services' in § 1926(b)."33 The Court found the logic in Cibolo's third argument—which "assumes that 'service' refers to the federally financed service"—to be faulty because "if 'service' refers to any service made available by a federally indebted utility, then 'similar service' refers to any services that are similar to those provided by the utility."34 Last, the Court pointed out that Green Valley's interpretation of § 1926(b) was consistent with its two purposes: "(1) to encourage rural water development by expanding the number of potential users of such system, thereby decreasing the per-user cost, and (2) to safeguard the viability and financial security of such associations . . . by protecting them from the expansion of nearby cities and towns."35 It stated that "a utility protected from municipal encroachment is able to achieve greater economies of scale," which would "thereby [decrease per-user costs and thus be less vulnerable to financial disruptions than would a utility not protected from municipal encroachment."36 Based upon these factors, the Fifth Circuit ruled in favor of Green Valley.

THE PUC'S RULING

Ignoring the decision by the Fifth Circuit, the PUC ruled in favor of Cibolo under TWC section 13.255.³⁷ Before the PUC, Green Valley argued that the decertification would render property within the incorporated area useless or valueless, which would therefore entitle them to adequate and just compensation under TWC section 13.255(c).³⁸ It further contended that the dollars expended for engineering and planning to implement its wastewater master plan allocable to the decertification area, obtaining a TCEQ permit allocable to the decertification area, and legal fees and appraiser expenses

³⁰ Id. at 342.

³¹ Id. at 343.

³² Id. at 342.

³³ Id.

³⁴ Id.

³⁵ Id.

³⁶ Id.

³⁷ Id. at 344.

³⁸ See PUC Order, supra note 7.

would be rendered useless or valueless in addition to lost expected net revenues allocated to the decertification area.³⁹

However, the PUC held that no property of Green Valley would be rendered useless or valueless upon decertification and that Green Valley is not entitled to any compensation resulting from decertification.⁴⁰ In making its ruling, the PUC looked at TWC sections 13.255(c) and 13.255(g).⁴¹ The PUC disagreed with Green Valley based upon the following findings: (1) Green Valley has not adopted either retail sewer rates or sewer impact fees; (2) it does not have any wastewater infrastructure or retail wastewater customers in the decertification area; and (3) it does not have a pollutant-discharge-elimination system permit to construct or operate a wastewater-treatment plant.⁴² Furthermore, the PUC held that a CCN is not property, the loss of CCN area is not a loss of property, expenditures are not property, and that lost future revenues are not property and not compensable.⁴³ Consequently, the PUC granted Cibolo's application to remove the decertification area from Green Valley and amended Cibolo's CCN to include the decertification area.⁴⁴

CONCLUSION

Both parties are currently looking to overturn the rulings unfavorable to them through appeals. In December 2017, Cibolo appealed to the U.S. Supreme Court for a writ of certiorari to review the Fifth Circuit's ruling.⁴⁵ In its petition, Cibolo cited the Eighth Circuit's decision on the same question of federal statutory interpretation, as the Eighth Circuit reached the opposite conclusion of the Fifth Circuit when interpreting the meaning of "[t]he Service."⁴⁶ Cibolo also noted the Fifth's Circuit approach to determining when a utility has "provided or made available" a service conflicts with the rulings of the Fourth, Sixth, Eighth, and Tenth Circuits, which "require an association to establish that a service is already being, or can promptly be, furnished to qualify for protection under § 1926(b)."⁴⁷ The Supreme Court requested a response from Green Valley, which was provided on April 11, 2018, and has invited the Solicitor General to file a brief in the case expressing the views of the United States.⁴⁸ As such, it remains to be seen whether the Supreme Court will grant certiorari and resolve the circuit split on the interpretation of § 1926(b).

³⁹ Id. at 16.

Green Valley Special Utility District's Motion for Rehearing at 2, PUC Order, *supra* note 7 (Feb. 2, 2018).

⁴¹ PUC Order, supra note 7, at 17.

⁴² *Id.* at 11.

⁴³ Id. at 17–19.

⁴⁴ Id. at 20.

Petition for Writ of Certiorari, City of Cibolo v. Green Valley Special Util. Dist., No. 17-938 (Dec. 29, 2017).

⁴⁶ Id. at 1.

⁴⁷ Id. at 2.

⁴⁸ United States Supreme Court Docket Sheet, https://www.supremecourt.gov/search.aspx? filename=/Docket/docketfiles/html/public/17-938.html.

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