Texas Environmental Law Journal

Volume 46 June 2016 Number 2

Prepared through The University of Texas School of Law Publications Office
ISSN 0163-545X

Please cite as: Tex. Envtl. L. J.

Texas Environmental Law Journal

Volume 46 June 2016 Number 2

State Bar of Texas

Environmental and Natural Resources Law Section
P.O. Box 220, Mailstop H-429
Austin, Texas 78767-0220
www.texenrls.org

Editorial Board

Developments Attorney Contributors

UNIVERSITY OF TEXAS SCHOOL OF LAW

TEXAS ENVIRONMENTAL LAW JOURNAL
727 East Dean Keeton St.
Austin, Texas 78705-3224
(512) 471-0299 / telj@law.utexas.edu

STUDENT EDITORIAL BOARD 2015-2016

STAFF 2015-2016

Texas Environmental Law Journal

Volume 46 June 2016 Number 2

State Bar of Texas
Environmental and Natural Resources Law Section

Section Officers (2015-2016)

Executive Committee Members (2016-2018)

Committee Chairs (2016)

STATEMENT OF PURPOSE

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

JOINT PUBLICATION

The *Texas Environmental Law Journal* is an official publication of the Environmental and Natural Resources Law Section of the State Bar of Texas and is published jointly with the University of Texas School of Law's *Texas Environmental Law Journal*. In 1990, the Environmental and Natural Resources Law Section reached an agreement with this student organization at the University of Texas School of Law to co-produce the *Journal* as the *Texas Environmental Law Journal*. The students' involvement began with the summer issue in 1990.

OTHER INFORMATION

The opinions expressed in the *Journal* are solely the opinions of the respective authors and are not the opinions of the School of Law, or the University of Texas School of Law's *Texas Environmental Law Journal*.

To contact the *Journal*, please use the contract information in the preceding pages.

SOLICITATION OF ARTICLES & EDITORIAL POLICIES

The *Journal* solicits articles from authors on environmental and natural resources subjects that will assist Texas environmental and natural resource law practitioners and develop the advancement of environmental and natural resource law.

If you are interested in submitting an article, please contact:

Editor-in-Chief (lynclancytx@gmail.com)

The *Journal* will consider for publication any articles from practitioners, judges, academics, policymakers, and others that are relevant and useful to practitioners in the environmental and natural resources law arena. Manuscripts should be submitted via email to the Solicitations Attorney Editor, Student Lead Articles Editor, or Editor-in-Chief at the addresses shown above.

If the *Journa*l accepts a manuscript for publication, the author must provide a copy in electronic format (Microsoft Word) with no pre-defined embedded coding or styles. If a manuscript includes graphics, please provide as separate files, preferably JPEG, PDF, or TIFF files. Graphics should be grayscale and at a resolution of at least 300dpi. The manuscript should be typed and double-spaced, with footnotes. Citations should conform to the most recent editions of *The Bluebook*: A *Uniform System of Citation* and the *Texas Rules of Form*.

If you desire the *Journal* to return any printed manuscript, please provide a postage prepaid, self-addressed envelope with the manuscript.

COPYRIGHT & PERMISSION TO USE

REPRINTS

The *Journal* has a contract with William S. Hein & Co., Inc. for Hein to provide back issues. Hein has single issues, single volumes, and complete sets available from Vol. 1 (1971) to current at its current fees. These issues are also available electronically through HeinOnline. William S. Hein & Co., Inc.; 2350 N. Forest Rd., Getzville, NY 14068; (716) 882-2600, (800) 828-7571, Fax: (716) 883-8100; mail@wshein.com; www.wshein.com.

SUBSCRIPTIONS & SECTION MEMBERSHIPS

SUBSCRIPTIONS

Subscriptions to the *Journal* are available through:

The University of Texas School of Law Publications
727 East Dean Keeton Street
Austin, Texas 78705-3224
(512) 232-1149
Publications@law.utexas.edu
Order and pay online at: www.texaslawpublications.com

The annual subscription price is $40.00 domestic / $50.00 foreign; single issues are $15.00. Austin residents add 8.25% sales tax, and other Texas residents add 7.25% sales tax.

SECTION MEMBERSHIPS

For attorneys licensed by the State Bar of Texas, membership in the Environmental and Natural Resources Law Section includes an electronic subscription to the *Journal*. To receive hardcopy issues of the *Journal*, please mail Publications@law.utexas.edu or write the Publications Office at the above address stating your Section membership number and your mailing address. Hardcopy requestors will receive only those issues published after your Section membership begins. All subscriptions expire on May 31 unless your annual Section membership is renewed, regardless of the date of initial membership.

To become a member of the Section or to renew your annual membership by May 31 of each year if not renewed when paying your annual State Bar of Texas dues, mail a completed copy of the form on the following page and a check for $30.00 made payable to "Environmental and Natural Resources Law Section – State Bar of Texas" to:

The State Bar of Texas
Membership Services
P.O. Box 12487
Austin, Texas 78711-2487

And, mail a copy to ENRLS, P.O. Box 220, Mailstop H429, Austin, Texas 78767-0220.

Please call Membership Services ((800) 204-2222 or (512) 427-1463), the Publications Office (512) 232-1149), the Treasurer, or the Editor-in-Chief, if you have any questions.

Name	
Firm, Business, or Agency	
E-mail Address (required to receive Greenwire Newservice and e-Newsletters)	
Mailing Address	
Hard Copy Desired	
Telephone/Fax Numbers	
State Bar Number	

A version of this form is also available on the Section's website at: www.texenrls.org/howtojoin.html.

Know Your Role: Exploring the Ability of Local Governments to Clean up the Air

By James Richards

I. Introduction

The federal and state governments have been attempting to clean up the air around the major metropolitan regions of Texas for decades,[1] starting with the passing of the Clean Air Act (CAA) in 1963.[2] To aid the federal government, the states have been delegated the authority to administer the requirements of the CAA.[3] This combination

1 *See History of the TCEQ and Its Predecessor Agencies*, Tex. Comm'n on Envtl. Quality, http://www.tceq.state.tx.us/about/tceqhistory.html (last visited Feb. 11, 2016) (explaining that in 1965 the Texas Clean Air Act established the Texas Air Control Board "to monitor and regulate air pollution in the state" and detailing further actions taken by the state to improve air quality, such as the submission of the Harris County ozone plan by the Texas Air Control Board to the EPA in 1982).

2 *See Understanding the Clean Air Act*, U.S. Envtl. Prot. Agency, http://www3.epa.gov/airquality/peg_caa/understand.html (last visited Feb. 11, 2016) (noting that the original Clean Air Act of 1963 "established funding for the study and the cleanup of air pollution").

3 *See, e.g.* 42 U.S.C. § 7410 (2016).

of federal and state regulation has drastically improved Texas' and the nation's ambient air quality over the past fifty-two years.[4] However, there is still work to be done.

The federal and state governments continue to refine their approaches, but could use greater assistance from local governments. By weaving through the confines of federal and state regulatory parameters and avoiding preemption, local governments can have a positive impact on the battle to clean up the air. In fact, their involvement could be crucial in bringing areas into attainment that are currently in non-attainment. This article discusses both successful and unsuccessful attempts by local governments in Texas to assist in this effort.

II. History of Air Pollution Regulation

Congress initially addressed the issue of air pollution in two ways: by authorizing the surgeon general to study the problem and by offering financial support to state and local governments as they attempted to abate the problem.[5] As time passed and no state or local governments took steps toward decreasing air pollution, Congress enacted legislation, including the CAA, to promote the states' involvement.[6] However, the states were woefully slow to act;[7] therefore, Congress "[took] a stick to the States" by enacting the Clean Air Amendments of 1970.[8] These amendments not only drastically increased the federal government's authority and responsibility in the fight against air pollution,[9] but also explicitly reserved for the states "the primary responsibility for assuring air quality within the entire geographic area comprising such State . . . ."[10] Essentially, the states no longer had a choice about addressing the issue of air pollution.[11]

III. Preemption

Prior to addressing local efforts to address air pollution, it is important to understand the principle of preemption. Preemption acts in a similar fashion whether it is a state statute battling a federal statute, or a local ordinance battling a state statute. Below is a brief discussion of both varieties.

A. Federal Preemption

Federal preemption was instituted in the United States upon the adoption of the Constitution and is derived from the Supremacy Clause, which states:

---

4 *The Clean Air Act at 40: A Clear Track Record of Success*, NAT. RES. DEF. COUNCIL, https://www.nrdc.org/air/files/cleanairactsuccess.pdf (last visited Feb. 11, 2016).
5 *Id.* Train v. Nat. Res. Def. Council, Inc., 421 U.S. 60, 63 (1975).
6 *See Train*, 421 U.S. at 63–64.
7 *Id.* at 64.
8 *Id.*
9 *Id.*
10 42 U.S.C. § 7407(a) (2015).
11 *Train*, 421 U.S. at 64.

> This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.[12]

Essentially, the Supremacy Clause creates the principle "that a federal law can supersede or supplant any inconsistent state [or local] law or regulation."[13] Thus, through the application of federal preemption, a federal law "invalidates state laws that 'interfere with, or are contrary to,' federal law."[14]

The Supreme Court has recognized three types of federal preemption: (1) express preemption; (2) field preemption; and (3) conflict preemption.[15] Express preemption "define[s] explicitly the extent to which its enactments preempt state [and local] law."[16] Both field and conflict preemption are considered implied types of preemption because they act in the absence of explicit statutory language.[17] Field preemption occurs when a state or local government "regulates conduct in a field that Congress intended the Federal Government to occupy exclusively," while conflict preemption exists when a state or local law "actually conflicts with federal law."[18] Conflict preemption arises either where "compliance with both federal and state regulations is a physical impossibility,"[19] or where the state or local law "stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress."[20]

When a court is required to undertake a preemption analysis, "[c]ongressional purpose is the 'ultimate touchstone'" of the inquiry.[21] However, courts must narrowly construe federal laws that preempt an area of the law that typically falls within the state's police power due to the "presumption that state or local regulation of matters related to health and safety is not invalidated under the Supremacy Clause."[22] Conversely, the presumption does not arise when the state or local government regulates an area that has historically had a strong federal presence.[23] Therefore, because "each case turns on the peculiarities and special features of the federal regulatory scheme in question," preemption analysis requires courts to closely examine the particular statutes and regulations

---

12 U.S. CONST. art. VI, cl. 2.

13 *Preemption*, BLACK'S LAW DICTIONARY (10th ed. 2014).

14 Hillsborough County v. Automated Med. Labs., Inc., 471 U.S. 707, 712 (1985) (quoting Gibbons v. Ogden, 22 U.S. 1 (1824)).

15 English v. Gen. Elec. Co., 496 U.S. 72, 78–79 (1990).

16 *Id.* at 78.

17 *Id.* at 79.

18 *Id.*

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

20 Hines v. Davidowitz, 312 U.S. 52, 67 (1941).

21 Lorillard Tobacco Co. v. Reilly, 533 U.S. 525, 541 (2001) (quoting Cipollone v. Liggett Group, Inc., 505 U.S. 504, 516 (1992)).

22 Oxygenated Fuels Ass'n, Inc. v. Pataki, 158 F. Supp. 2d 248, 253 (N.D.N.Y. 2001) *opinion adhered to as modified on reconsideration*, No. 1:00-CV-1073, 2002 WL 32329221 (N.D.N.Y. May 16, 2002) (quoting Hillsborough Co. v. Automated Med. Labs, 471 U.S. 707, 715 (1985)).

23 U.S. v. Locke, 529 U.S. 89, 106-07 (2000).

involved.[24] Federal supremacy should not be lightly presumed.[25] Courts, therefore, should err on the side of caution, finding no preemption, if there is any doubt as to congressional intent.[26]

Federal preemption analysis begins by ascertaining congressional purpose and intent.[27] If there is an express preemption clause, the court must focus on the plain meaning of the clause.[28] Once it determines the plain meaning of the clause, the court can then determine if the state or local statute is preempted.[29] However, even where a federal statutory scheme regulates the field, every state regulation that impacts that field is not preempted.[30] "Tension between federal and state law is not enough to establish conflict preemption."[31] In fact, a court should only find preemption in "those situations where conflicts will necessarily arise"; a hypothetical conflict is not enough.[32] Environmental regulation is traditionally an area of state control,[33] and, therefore, each case necessarily turns on the specific regulations at issue and begins with the presumption that there is no federal preemption.[34]

B. TEXAS PREEMPTION

Preemption in Texas functions rather similarly to federal preemption, but has a few differences. In Texas, cities and towns with a population greater than 5,000 that accept the charter power available to them from Article XI, Section 5, of the Texas Constitution have

> full power of self-government, that is, full authority to do anything the legislature could theretofore have authorized them to do. The result is that now it is necessary to look to the acts of the legislature not for grants of power to such cities but only for limitations on their powers.[35]

In other words, home rule cities have the full power of self-government and look to the Legislature only for limitations on their powers, not for grants of power.[36] Further, "[t]he powers of home rule cities are subject to and may be limited only by their charters or by the Constitution or by general law.[37]

Just as the federal legislature must make it expressly clear that it intends to regulate a field in order to confine a state's authority, so must the state legislature expressly indicate

---

24 Burbank v. Lockheed Air Terminal, Inc., 411 U.S. 624, 638 (1973).
25 *See* N.Y. State Dep't of Soc. Servs. v. Dublino, 413 U.S. 405, 413 (1973).
26 Penn Dairies v. Milk Control Comm'n, 318 U.S. 261, 275 (1943).
27 *Id.*
28 *See, e.g.*, Tesfamichael v. Gonzales, 411 F.3d 169, 173 (5th Cir. 2005).
29 *Id.*
30 Schneidewind v. ANR Pipeline Co., 485 U.S. 293, 308 (1988).
31 Silkwood v. Kerr-McGee Corp., 464 U.S. 238, 256 (1984).
32 Goldstein v. California, 412 U.S. 546, 554 (1973).
33 42 U.S.C. § 7407(a) (2016).
34 *See* Rice v. Santa Fe Elevator Corp., 311 U.S. 218, 230 (1947).
35 Forwood v. City of Taylor, 214 S.W.2d 282, 286 (Tex. 1948).
36 *See id.* (describing the City of Taylor as a "home-rule city").
37 Lower Colo. River Auth. v. City of San Marcos, 523 S.W.2d 641, 644 (Tex. 1975).

its intentions.[38] "Simply because the legislature has enacted a law addressing a subject matter does not mean the legislature has completely preempted the subject matter."[39] "For a state statute to preempt a subject matter usually encompassed by municipal authority, the state statute must do so with 'unmistakable clarity.'"[40]

IV. Southern Crushed Concrete v. City of Houston

In one notable case, *Southern Crushed Concrete v. City of Houston*, the Supreme Court of Texas had to determine whether the Texas Clean Air Act (TCAA) preempted an ordinance enacted by the City of Houston.[41] In October 2003, Southern Crushed Concrete applied to the Texas Commission on Environmental Quality (the "Commission" or TCEQ) for a permit to move an already-permitted concrete crushing facility to a new location in Houston.[42] After almost four years of permit proceedings, the City of Houston passed an ordinance requiring concrete crushing facilities to obtain a municipal permit in addition to an air quality from the Commission.[43] The City of Houston was an active participant in the permit proceedings, opposing the permit from the start.[44]

A. Procedural and Substantive History

Houston's ordinance provisions pertaining to location were more restrictive than those imposed under the TCAA and its accompanying regulations.[45] Specifically, Houston's ordinance prohibited a concrete crushing facility from being within 1,500 feet of a school, while the TCAA and its accompanying regulations required 1,320 feet between the property lines of a school and the concrete crushing facility (measured from the nearest points of the buildings in question).[46] Despite opposition from Houston and the mandates of the newly enacted ordinance, the Commission granted the permit, determining the location would not violate the requirements found in the TCAA and its regulations.[47] As expected, Houston denied the municipal permit.[48]

After the denial of the municipal permit, Southern Crushed Concrete sued Houston, seeking both a declaration that the ordinance was preempted by the TCAA and an

---

38 *See* Austin Apartment Ass'n v. City of Austin, 89 F. Supp. 3d 886, 894 (W.D. Tex. 2015) (noting that if the Texas legislature wants to preempt a subject normally within the powers of a city, the legislature must be unmistakably clear in doing so and explaining that "Congress may expressly state a federal law preempts state law").

39 City of Houston v. Todd, 41 S.W.3d 289, 295 (Tex. App.—Houston [14th Dist.] 2001, pet. denied).

40 City of Freeport v. Vandergrifft, 26 S.W.3d 680, 681 (Tex. App.—Corpus Christi 2000, pet. denied) (quoting Dallas Merchant's & Concessionaires Assoc. v. Dallas, 852 S.W.2d 489, 491 (Tex. 1993)).

41 Southern Crushed Concrete, LLC v. City of Houston, 398 S.W.3d 676, 677 (Tex. 2013).

42 *Id.*

43 *Id.*

44 *Id.*

45 *Id.*

46 *Id.*

47 *Id.*

48 *Id.*

injunction preventing enforcement of the ordinance.[49] Southern Crushed Concrete pointed to Article XI, Section 5, of the Texas Constitution, which states "[N]o . . . ordinance . . . shall contain any provision inconsistent with the Constitution of the State, or of the general laws enacted by the Legislature of this State."[50] Southern Crushed Concrete also argued that the TCAA preempted the ordinance because it states that a city ordinance "may not make unlawful a condition or act approved or authorized under [the TCAA] or the [C]ommission's rules or orders."[51] Finally, Southern Crushed Comfort argued that the Local Government Code's uniformity-of-requirements provision preempted the ordinance because the city adopted the ordinance after Southern Crushed Concrete filed its application for a permit with the Commission.[52]

Southern Crushed Concrete lost in both the trial and the court of appeals.[53] The trial court dismissed Southern Crushed Concrete's claim with prejudice after summary judgment, determining that the ordinance was not preempted by the TCAA.[54] And while the intermediate appellate court affirmed,[55] the Supreme Court reversed.[56]

B. COURT'S RATIONALE

The Texas Supreme Court began its analysis by stating that Houston is a home-rule city, which derives its authority from the Constitution and only looks to the legislature for limits on its inherent power.[57] However, the Supreme Court was able to determine the outcome of the case simply by reading the language of the TCAA.[58] The Court noted that the plain language of the Texas Health & Safety Code "plainly forbids a city from nullifying an act that is authorized by either the [Texas Clean Air Act] or, as in this case, the Commission's rules or orders."[59] The Court concluded that, since the Commission had granted a permit, through proper process and without deviation, a city could not nullify the permit based on the plain language of the statute, and that permit was, by definition, an authorization by the Commission.[60] Therefore, Houston's ordinance was preempted because it directly conflicted with the TCAA.[61]

---

49 *Id.*
50 *Id.* at 677–78 (quoting TEX. CONST. art. XI, § 5).
51 *Id.* (quoting TEX. HEALTH & SAFETY CODE ANN. § 382.113(b) (West 2016)).
52 *Id.* (referencing TEX. LOC. GOV'T CODE ANN. § 245.002 (West 2016)).
53 *See id.* at 677.
54 *Id.* at 678.
55 *Id.*
56 *Id.*
57 *Id.*
58 *See id.* at 679.
59 *Id.*
60 *Id.*
61 *Id.*

V. BCCA Appeal Group, Inc. v. City of Houston

The City of Houston enacted an air pollution ordinance in 1992 which, until 2007, "only regulated air pollution from facilities not already regulated by the state."[62] Prior to 2007, Houston contracted with the Commission to assist in regulating entities that the Commission did not itself regulate; however, in 2005, Houston did not renew its contractual relationship with the Commission.[63] Instead, Houston decided to draft an ordinance that would amend its prior ordinance establishing its own air quality regulatory scheme.[64] The new scheme not only covered the sources already subject to the 1992 ordinance, but also sources regulated by the Commission, increasing the compliance and cost burdens to those facilities.[65]

The new scheme made it "unlawful for any person to operate or cause to be operated any facility" within the City's boarders unless they were registered with the City.[66] Pursuant to the ordinance, the permits would be "issued by the health officer" after the applicable fee was paid.[67] A failure to comply with the ordinance resulted in a fine of not less than $250 but not more than $1,000 for first time offenders, and a fine of not less than $1,000 but not more than $2,000 for repeat offenders.[68] The citations issued would be enforced through the municipal court like all other city tickets.[69]

The newly-adopted amendments drastically changed the relationship between Houston and the Commission.[70] Before the 2007 amendment, Houston's health officers "carr[ied] out a regulatory compliance program to determine whether registered facilities are in compliance with all applicable state and federal air pollution control laws and regulations."[71] The amendment incorporated many of the Commission's regulations in the Texas Administrative Code word for word.[72] Further, the amendment incorporated any future changes that the Commission may make to these regulations.[73] As amended, the ordinance directed Houston's health officers to verify "whether registered facilities

---

62 City of Houston v. BCCA Appeal Group, Inc., No. 01–11–00332–CV, 2013 WL 4680224 at *3 (Tex. App.—Houston [1st Dist.] Aug. 29, 2013, pet. granted), rev'd, BCCA Appeal Group, Inc. v. City of Houston, No. 13–0768, 2016 WL 1719182 (Tex. 2016).

63 *BCCA*, 2013 WL 4680224 at *3.

64 *Id.*

65 *Id.*

66 *Id.* (quoting Houston, Tex., Code of Ordinances ch. 21, art. VI, § 21–162(a) (2007)).

67 Houston, Tex., Code of Ordinances ch. 21, art. VI, § 21–163 (2007).

68 *Id.* § 21–162(c).

69 *BCCA*, 2013 WL 4680224, at *3. *See generally* City's "Draft FAQ About the Changes to the City of Houston Air Pollution Abatement Program and Registration Ordinance," *available at* www.greenhoustontx.gov/pdf/ordinance-registration-faq.doc (last visited May 16, 2016).

70 *See BCCA*, 2013 WL 4680224, at *3. (recognizing that the City's air-quality ordinance "only regulated air pollution from facilities that were not already regulated by the State" until 2007, when the City expanded the scope of the ordinance "to include the regulation of facilities and sources subject to regulation by [the Commission]"). *See generally* Houston, Tex., Code of Ordinances, ch. 21, art. VI, § 21–162(a) (2007).

71 *BCCA*, 2013 WL 4680224 at *4.

72 *Id.*

73 *Id.*

are in compliance with all applicable state and federal air pollution control laws and regulations" and to pursue "[c]ivil, administrative and criminal sanctions imposed by law shall be pursued where violations are determined to exist."[74]

A. Plaintiff's Claims and Procedural and Substantive History

Due to the additional burden, costs, and potential for new liability, BCCA challenged Houston's new ordinance, arguing that the TCAA preempted it. Both Houston and BCCA filed cross-motions for summary judgment.[75] Houston raised two arguments: (1) that BCCA lacked standing, and (2) the ordinance was a "legitimate exercise of the City's police powers."[76] The crux of Houston's police powers argument was that the ordinance was within "its right to regulate air pollution within its borders was not limited by any state law, and in fact, the Ordinance was consistent with applicable state law and in compliance with the Texas Constitution."[77]

BCCA argued that "the provisions of the Ordinance requiring facilities to register with, and pay fees to, the City were inconsistent with the TCAA and made illegal conduct that was otherwise legal under state law," and that the ordinance was not a valid exercise of the city's police powers.[78] Further, BCCA argued that "the Ordinance's wholesale incorporation by reference with respect to specific state-level air pollution control laws as set forth in the Administrative Code 'as they currently are and as they may be changed from time to time' . . . constituted an impermissible delegation of the City's authority."[79] The trial court held that the ordinance violated state law and enjoined Houston from enforcing the ordinance.[80]

B. Court's Rationale

The Supreme Court methodically followed the analysis required when a preemption challenge is brought against a home-rule city's exercise of its police power.[81] The court fully examined how the current statutory regime was set up to effect home-rule cities' efforts to clean up the air.[82] The Court established that a home-rule city's ordinance is preempted if the "Legislature's intent to provide [so] appears with 'unmistakable clarify.'"[83] To assess this, the Court began with a look at the statutory scheme.[84] Chapter 7 of the Water Code and the TCAA give the TCEQ great discretion to evaluate an alleged violation and to determine the appropriate penalty or remedy for violations.[85] For

---

74 *Id.* (quoting HOUSTON, TEX., CODE OF ORDINANCES ch. 21, art. VI, § 21–164(b) (2007)).
75 *Id.* at *4.
76 *Id.*
77 *Id.*
78 *Id.* at *5.
79 *Id.*
80 *Id.*
81 BCCA Appeal Group, Inc. v. City of Houston, No. 13–0768, 2016 WL 1719182, at *3-15 (Tex. 2016).
82 *Id.*
83 *Id.* at *5-8.
84 *Id.* (examining TEX. WATER CODE §§ 7.02, 7.053, & 7.203 and TEX. HEALTH & SAFETY CODE § 382.025(a)).
85 *Id.*

instance, TCEQ may seek civil remedies,[86] assess an administrative penalty,[87] or, in certain specific situations, seek criminal punishments.[88] Additionally, the Court noted that a home-rule city could bring suit against a violator so long as the suit was authorized by a resolution and the TCEQ was joined as a necessary and indispensable party.[89] The Court concluded that, whenever there is a violation of the air quality regulations, or of a permit, the TCEQ must be involved in the decision making as to how the individual or entity should be legally pursued.[90] Based on this analysis, the court concluded that the TCAA "unmistakably expresses" an intent to preempt any ordinance (or part thereof) that is inconsistent with statutory scheme established by the Texas Water Code, the TCAA, or any TCEQ rule or order.[91]

After determining that the ordinance could be preempted, the Court analyzed the ordinance under the statutory scheme to determine if any part of the ordinance is preempted, and determined that the enforcement provisions of the ordinance are preempted.[92] The Court explained that the ordinance was preempted because the ordinance's enforcement provisions were inconsistent with the legislative intent of establishing consistent provisions for enforcement of air pollution laws statewide.[93] Contrary to the desire for uniformity, the ordinance "converts what is primarily an administrative and civil enforcement regime under state law into a primarily criminal enforcement regime, removing primary enforcement authority from the agency that can ensure consistent enforcement across the state and placing that authority in the hands of the local health officer, city personnel, and municipal court judges."[94] Essentially, the ordinance "moots the TCEQ's discretion and the TCEQ's authority to select an enforcement mechanism" by permitting the City to pursue criminal prosecution even when TCEQ determined either civil or administrative remedies were appropriate.[95] Thus, the Court concluded that the ordinance was contrary to express legislative intent and, therefore, preempted.[96]

---

86 TEX. WATER CODE § 7.002.
87 *Id.* at § 7.073.
88 *Id.* at § 7.117.
89 *BCCA*, 2016 WL 1719182, at *11.
90 *Id.* at *14.
91 *Id.* at *7 (explaining TEX. HEALTH & SAFETY CODE § 382.113).
92 *Id.* at *3-15.
93 *Id.* at *7.
94 *Id.*
95 *Id.* at *8.
96 *Id.* at *15. At this point, the Court determined that the registration requirement was also preempted and then determined that the incorporation of TCEQ rules into city ordinance did not violate the nondelegation doctrine of the Texas Constitution. However, these points are outside of the scope of this paper.

VI. ASSOCIATION OF TAXICAB OPERATORS USA V. CITY OF DALLAS

In March 2010, the City of Dallas passed ordinance 27831 ("Ordinance").[97] This Ordinance gave taxicabs that were equipped with engines that ran on compressed natural gas[98] (CNG) the privilege to "move" to the head-of-the-line for passenger pick-up at Dallas Love Field Airport in front of taxicabs that were equipped with traditional engines.[99] However, the Ordinance restricted the privilege to unscheduled pick-ups of customers—prearranged pick-ups and deposits of customers are not subjected to any privilege.[100] Further, the Ordinance was limited by applying only at Dallas Love Field Airport.[101] The Ordinance is a criminal ordinance, carrying a $500 fine for a violation of its provisions.[102]

On April 15, 2010, the Association of Taxicab Operators USA (ATO) filed suit seeking a declaratory judgment that the Ordinance was preempted by Section 209(a) of CAA.[103] Section 209(a) of CAA, which is an express preemption statute, states:

No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part [42 U.S.C. §§ 7521 *et seq*.]. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial retail sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment.[104]

Section 209(d) clarifies section 209(a)'s preemptive limit: "Nothing in this part shall preclude or deny to any State or political subdivision thereof the right otherwise to control, regulate, or restrict the use, operation, or movement of registered or licensed motor vehicles."[105]

To determine if the federal statute preempts local laws, courts start by examining the federal statutory language to find Congressional intent.[106] Then, a comparison of the laws will be made with an attempt to construe the statute in a way that avoids preemption.[107] It is important to note "the historic police powers of the States are not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress."[108]

---

97 Ass'n of Taxicab Operators v. City of Dallas, 720 F.3d 534, 535 (5th Cir. 2013) (hereinafter *ATO*).
98 *Id.* at 535–36 (describing the process to certify that a taxicab was equipped with a CNG engine).
99 *Id.* at 535.
100 *Id.*
101 *Id.*
102 *Id.* at 536.
103 *Id.*
104 42 U.S.C. § 7543(a) (2016).
105 *Id.* § 7543(d).
106 *ATO*, 720 F.3d at 538.
107 *Id.*
108 *Id.* (quoting Altria Grp., Inc. v. Good, 555 U.S. 70, 77 (2008)).

A. Plaintiff's Claims and Procedural and Substantive History

After the Ordinance went into effect on April 10, 2010, thereby allowing CNG engine taxicabs to move in front of traditional engine taxicabs in the queue, ATO filed suit seeking a declaratory judgment that the ordinance was preempted by section 209(a) of CAA.[109] ATO also sought a permanent injunction barring enforcement of the ordinance.[110] The district court granted a temporary restraining order, preventing enforcement of the Ordinance.[111] But several months later, after an evidentiary hearing, the court found that the Ordinance was an incentive that "[changed] only the order of operations in Love Field taxi dispatching . . . not an enforceable standard relating to the control of emissions implicated by [section] 209(a)'s express preemption provision."[112] Because the Ordinance was viewed as an incentive, and not a standard, the court determined that ATO failed to show that it would likely prevail at trial.[113] Thus, the district court denied ATO's request for a preliminary injunction and granted the City's motion for summary judgment.[114] Upon the court's order, the City resumed enforcement of the Ordinance.[115]

After the district court granted the City's motion for summary judgment, ATO appealed.[116] In its appeal, ATO argued that, either facially or through the "inexorable, coercive effects flowing from its enforcement," the Ordinance "[failed] as preempted by [section] 209(a)'s first sentence, because in enacting the head-of-the-line privilege, Dallas adopted or attempted to enforce a standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part."[117]

In August 2011, the City filed a motion for summary judgment seeking to dismiss all of ATO's claims as a matter of law.[118] Because the district court "found no genuine issue of material fact appropriate for trial," the City's motion was granted and the case dismissed.[119] ATO appealed to the Fifth Circuit.[120]

B. Court's Rationale

The Fifth Circuit began its analysis by indicating that the proper standard of review is *de novo,* the same standard used by the district court.[121] The appeal for a summary judgment will be affirmed "if the record, viewed in the light most favorable to the nonmovant, 'demonstrates that there is no genuine issue of material fact and that the moving party is entitled to judgment as a matter of law.'"[122] In other words, the movant must

---

109 *Id.* at 536.
110 *Id.*
111 *Id.*
112 *Id.* (internal quotes omitted).
113 *Id.* at 536.
114 *Id.*
115 *Id.*
116 *Id.* at 537.
117 *Id.* at 538 (internal quotes omitted).
118 *Id.*
119 *Id.* at 537.
120 *Id.*
121 *Id.*
122 *Id.* (internal quotes omitted); U.S. v. Renda, 709 F.3d 472, 478 (5th Cir. 2013).

be able "to identify specific evidence in the record and to articulate precisely how this evidence supports his claim."[123]

The court explained that preemption was created by the Constitution of the United States.[124] Throughout the evolution of the preemption doctrine, three general types of preemption have emerged: (1) express preemption, (2) implied preemption through conflict between the federal and state/local law, and (3) implied preemption through the federal law's occupying the field.[125] The court identified the preemption challenge in this case as falling into the first category of preemption—express preemption.[126] Express preemption can manifest itself in two ways: facially and through coercive effects.[127] With this in mind, the court analyzed the Ordinance in light of both types of express preemption.[128]

1. CREATION OF AN IMPERMISSIBLE "STANDARD"

To determine if the Ordinance prescribed a standard, the court first had to define "standard."[129] To do so, the court examined the United States Supreme Court decision in *Engine Manufacturers Association v. South Coast Air Quality Management District* (*EMA*).[130] In *EMA*, the Supreme Court defined "standard" as "that which 'is established by authority, custom, or general consent, as a model or example; criterion; test.'"[131] The court followed the Supreme Court's logic that "standard," in the CAA context, is limited to "a mandatory, pollution-related obligation."[132] The Court noted that

> The criteria referred to in [section] 209(a) relate to the emission characteristics of a vehicle or engine. To meet them the vehicle or engine *must not* emit more than a certain amount of a given pollutant, *must* be equipped with a certain type of pollution-control device, or *must* have some other design feature related to the control of emissions.[133]

The court reiterated the Supreme Court's observation that this definition of "standard" is consistent with the way Congress used "standard" throughout the CAA.[134]

For the Ordinance to impermissibly create a "standard," a "command, accompanied by sanctions" to only use CNG-fueled taxicabs, would have to be created.[135] The court noted, and ATO did not dispute, that the Ordinance "demands no more of traditional

---

123 *ATO*, 720 F.3d at 537.
124 *Id.*; U.S. CONST. art. VI, cl. 2.
125 *ATO*, 720 F.3d at 538.
126 *Id.* Federal law is to be read in a manner that attempts to avoid superseding state or local law unless that is the "clear and manifest purpose of Congress." *Id.* (quoting Altria Grp. Inc. v. Good, 55 U.S. 70 (2013)).
127 *Id.*
128 *Id.*
129 *Id.* at 539.
130 *Id.*
131 *Id.* (quoting Engine Mfr.s Ass'n v. S. Coast Air Quality Mgmt. Dist., 541 U.S. 246 (2004)).
132 *Id.*
133 *Id.* (emphasis in the original) (quoting Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist., 541 U.S. 346 (2004)).
134 *Id.*
135 *Id.*

cabs than that, if they wish to make unscheduled pick ups at Love Field, they honor the head-of-the-line privilege that CNG cabs may invoke."[136] Instead of a demand, the court found the Ordinance created a legal incentive to transition from traditional engine taxicabs to CNG engine taxicabs.[137] In determining that an incentive is not a standard, the court followed the guidance provided by Justice Scalia in *EMA*.[138] Specifically, the court noted that "incentive programs 'are significantly different from command and control [regulations],'" and "[s]uffice it to say that nothing in the present opinion necessarily *entails* pre-emption of voluntary programs."[139]

The court also compared *EMA* to the case at hand. In *EMA*, the State of California, through an air pollution control body, directed various vehicle fleets, both public and private, to purchase reduced-emission vehicles.[140] There were no other options: these specific fleets had to comply with the directive or face sanctions.[141] Conversely, the City of Dallas gave a privilege to CNG engine taxicabs, not a mandate.[142] The Ordinance only allowed certified CNG engine taxicabs the ability to move to the head-of-the-line at the taxicab queue for unscheduled pickups at Love Field; the City did not require the purchase and use of CNG engine cabs.[143] Further, the City gave traditional engine taxicabs the option to either transition to CNG engine taxicabs, wait in line behind the CNG engine taxicabs at Love Field Airport, or go to other locations throughout the City to get customers.[144] Thus, the court found that, on its face, the Ordinance was not preempted by section 209(a) because the Ordinance created an incentive to convert to cleaner-burning CNG engines, and did not mandate that taxicabs use CNG engines.[145]

2. Whether the Ordinance was Unduly Coercive

After determining that the Ordinance was not preempted on its face, the court then looked to see if the indirect effects of enforcement of the Ordinance rendered it a "standard," thus preempting the ordinance.[146] To that end, the court reviewed *Metropolitan Taxicab Board of Trade v. City of New York* ("*Metro. II*"), 633 F.Supp.2d 83, 103–05 (S.D.N.Y. 2009).[147] In *Metro II*, New York City adopted a measure that allowed owners of taxicabs to increase the rent of CNG-fueled taxicabs by three dollars while reducing the rent of traditional fueled taxicabs by twelve dollars.[148] To determine whether the application of this new measure was essentially a "standard," the Second Circuit relied on the Supreme Court's analysis from *N.Y. State Conference of Blue Cross & Blue Shield*

136 *Id.* at 540.
137 *Id.*
138 *Id.*
139 *Id.* (emphasis in the original) (quoting Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist., 541 U.S. 346 (2004)).
140 *Id.* at 539.
141 *Id.*
142 *Id.* at 540.
143 *Id.*
144 *See* Metropolitan Taxicab Board of Trade v. City of New York, 633 F.Supp.2d 83, 103-05 (S.D.N.Y. 2009) (hereinafter *Metro II*).
145 *ATO*, 720 F.3d at 540.
146 *Id.*
147 *Id.*
148 *Metro II*, 633 F.Supp.2d at 89.

Plans v. Travelers Insurance Company ("*Travelers*"), 514 U.S. 645 (1995).[149] In *Travelers*, New York State imposed surcharges to encourage insurance customers, including Employee Retirement Income Security Act of 1974 (ERISA)[150] members, to choose Blue Cross & Blue Shield as their insurance provider.[151] The Supreme Court noted that customers will shop for the best price, regardless of whether there are sanctions, and, therefore, the sanctions were distinct from state laws that mandated a particular plan or administration of the health care plan.[152]

Using the logic of *Travelers*, the Second Circuit found that "the New York City measure was so coercive as to indirectly mandate that cab owners purchase hybrids, constituting an offer which cannot, in practical effect, be refused."[153] To support this conclusion, the *Metro II* court noted that the measure "effectively force Fleet Owners to purchase hybrid taxicabs,[154] and the purpose and effect of the rules is to reduce emissions."[155]

Relying on those two cases, the Fifth Circuit court in *ATO* determined that the evidence did not support a conclusion that the Ordinance compelled operators of traditionally-fueled taxicabs to purchase a CNG-fueled taxicab; therefore, the Ordinance did not rise to the level of a "standard."[156] The Court enumerated a number of factors that helped it reach this conclusion: (1) the Ordinance does not displace traditionally-fueled taxicabs from the entirety of the City; (2) traditionally-fueled taxicabs can solicit passengers from other parts of the City to subsidize any business lost from Love Field; (3) CNG-fueled taxicabs only comprise seven percent of the taxicabs in the City; and (4) traditional fueled taxicabs have some distinct advantages over CNG-fueled taxicabs.[157] Therefore, because the court did not find that the enforcement of the Ordinance would effectively mandate that all taxicab operators purchase CNG-fueled taxicabs, the Ordinance did not rise to the level of a "standard" and was not preempted by section 209(a).[158]

VII. CONCLUSION

There is an old adage that states that it takes a village to raise a child. This adage applies perfectly to the protection of the environment. Congress recognized the truth of this adage as evidenced by the use of states and local governments to help enforce and

149 *Id.* at 93-94.
150 ERISA contains an express preemption provision, like CAA, which states that ERISA supercedes State laws insofar as they "relate to" an employee benefit plan. *See* 29 U.S.C. § 1144(a).
151 *Travelers,* 514 U.S. 645.
152 *Id.* at 660.
153 Ass'n of Taxicab Operators v. City of Dallas, 720 F.3d 534, 541 (5th Cir. 2013) (internal quotes omitted).
154 *Id.*
155 *Id.*
156 *Id.* at 542.
157 *Id.*
158 *Id.*

implement the provisions of the CAA and other environmental statutes. Texas also recognized its importance by providing that municipalities can create and enforce their own air pollution abatement programs. The above cases provide guidance to home rule cities on their role in the effort to decrease air pollution and meet the limits set by the Environmental Protection Agency.

The courts have reiterated that preemption is still out in force. There is a process in place, and competing plans cannot be tolerated. With competing plans comes inactivity, which leads to no progress. There must be continuity and cooperation; this is evidenced by *Southern Crushed Concrete* and *BCCA*.[159] These cases let home rule cities know that ordinances must be tailored in a way that does not conflict with the plans already established by federal and state statute.[160] Fortunately, the statutory scheme allows for civil remedies and criminal punishment to be pursued by home-rule cities. Unfortunately, before the city can act, TCEQ must first informed in both processes in order to promote the uniformity of action that the Legislature wanted in this arena.

It is important to remember, as the battle against air pollution continues, all parties must realize that they are allies, and cooperation is paramount. TCEQ may make the decisions as to what kind of process should be followed, and, ultimately, how the violator is sanctioned, but without the assistance of the local governments, but without the local governments the goal of having cleaner air would not be achievable.

And remember, there is a new arrow in the quiver. The Fifth Circuit Court of Appeals blessed the incentivizing of private industry to adopt newer technology that reduces emissions.[161] Now, local governments can use its property to allow businesses to increase their profits if they use greener technology. Thereby allowing state and local governments to bolster the federal government's attempts to clean up the environment by adopting laws that do not interfere with federal regulations, but rather enhance them.

Cleaner air will be a battle that is fought by federal, state, and local governments in perpetuity. The statutory scheme has been laid out. However, chances must always be taken. Sometimes, as in *Association of Taxicab Operators*, innovation will be permitted. Regardless, keep up the good fight.

James Richards is the Storm Water Prosecutor for the City of Dallas. *He would like to thank his friends and family for their support and influence in his growth as a writer, a jurist, and a person.*

159 *See* Southern Crushed Concrete, LLC v. City of Houston, 398 S.W.3d at 679 (Tex. 2013); *see also* BCCA Appeal Group, Inc. v. City of Houston, No. 13–0768, 2016 WL 1719182 (Tex. 2016).

160 *Southern Crushed Concrete*, 398 S.W.3d at 679.

161 *ATO*, 720 F.3d at 535.

Theory and Misuse of Just Compensation for Income-Producing Property in Federal Courts: A View from Above the Forest

By William W. Wade, Ph.D.

I. INTRODUCTION: FEDERAL MISCUES FOR TEXAS TO AVOID

The Texas Supreme Court, on May 1, 2015, denied petitions by plaintiffs Mr. & Mrs. Bragg and defendant Edwards Aquifer Authority (EAA) to review an appellate court ruling.[1] This denial let stand the San Antonio Court of Appeals' 2013 decision that the EAA's permit denials for the Braggs' two orchards amounted to a regulatory taking under the standards of the seminal takings case, *Penn Central*.[2] As a result of the Texas Supreme Court's denial, the appellate court's remand to value Braggs' damages for their taken water supply was the remaining issue taken up in the Medina County District Court in 2016.[3]

The Plaintiffs' testimony based just compensation on Braggs' water as a tradable commodity (akin to "Black Gold" for oil in the ground).[4] Defendant EAA based damages for Braggs' foregone water use on the replacement cost of leased water to irrigate their pecan orchards.[5] The difference between the plaintiffs' and defendant's economic loss estimates is nearly $4 million.

The appellate court remanded for valuation of the pecan orchard *land with* and *without* access to Edwards Aquifer water.[6] The Braggs' land was not the taken property right; the original trial court's takings decision relying on *Penn Central* was based on the EAA's reduction in the amount of water the Braggs could withdraw from the Edwards' Aquifer to irrigate their two pecan orchards.[7] The correct valuation method would estimate the present value of reduced farm income, past and future, *with* and *without* access to the claimed Edwards Aquifer water needed for irrigation—not the fair market value (FMV) of land. The appellate court remand direction was an economic error akin to the federal cases that are the subject of this Article.

In February 2016, a Medina County jury awarded Braggs $2.5 million as the difference in appraised value of pecan farmland *with* and *without* access to Edwards Aquifer water, and a final order was entered on May 27, 2016.[8] Throughout the course of the litigation, Mr. and Mrs. Bragg have been growing their orchards to maturity with rented water at limited added cost. Their actual economic losses likely were greatly less than the award, measured as the correct present value of lost income approach.[9] The Medina

---

1 Edwards Aquifer Auth. v. Bragg, 421 S.W.3d 118 (Tex. App.—San Antonio 2013, pet. denied).

2 *Bragg*, 421 S.W.3d at 138-46 (citing Penn Cent. Transp. Co. v. New York City, 438 U.S. 104 (1978)).

3 *Bragg*, 421 S.W.3d at 152-53; Bragg v. Edwards Aquifer Auth., No. 06-11-18170-CV (38th Dist. Ct., Medina County, Tex.).

4 Brief for Plaintiffs, *Bragg*, No. 06-11-118170-CV (Tex. 38th Dist. Ct., Medina County, Tex. Apr. 15, 2010). *See also* William W. Wade, *Liquid Gold or Water for Pecans: Valuation of Edwards Aquifer Water for the Braggs' taken Orchards*, 45 ENVTL. L. REP. L. NEWS & ANALYSIS 10,932 (2015).

5 Post-Trial Brief of Defendants, *Bragg*, No. 06-11-18170-CV (38th Dist. Ct., Medina County, Tex. Apr. 15, 2010).

6 *Bragg*, 421 S.W.3d at 152-53.

7 *Bragg*, No. 06-11-18170-CV, Amended Findings of Fact and Conclusions of Law (38th Dist. Ct., Medina County, Tex. Mar. 11, 2011).

8 *Bragg*, No. 06-11-18170-CV (38th Dist. Ct., Medina County, Tex. May 27, 2016).

9 Opinion of the author after following the case for years.

County court decision reveals that when appellate courts ask the wrong economic questions, responding trial courts reach an incorrect finding.

Where the loss is foregone income, the correct valuation method is that employed by the plaintiff experts in the line of cases discussed in Part III of this Article mostly involving the Department of Housing and Urban Development (HUD): present value of lost income based on the discounted cash flow (DCF) model.

Problems with both the plaintiffs' and defendant's valuation approaches together with the deficient appellate remand approach have ramifications for future *Penn Central* litigation attendant to *Day* and *Bragg*.[10] A long history of *Penn Central* takings cases reveals that *Penn Central's* famous three-prong test entails a quantitative measurement of plaintiff's severity of economic loss.[11] This begins with a proper economic measurement of losses and subsequent benchmarking of those losses to a denominator value that reveals whether plaintiff's distinct (or reasonable) investment-backed expectations have been frustrated.[12] Plaintiffs' motions throughout the case reveal dissatisfaction with any valuation approach but the tradable value of the water.[13] Defendant's motions reveal that no quantitative *Penn Central* test appears in the proceedings.[14]

In view of the importance of dependable water supplies for Texas, the outcome of the remand valuation is significant to more than the Braggs and EAA. The view from above the trees of federal takings cases where lost income was at stake may be instructive to Texas water policy. Part II of this Article discusses and contrasts the metrics of FMV for real property and the economic valuation of lost earnings with the standard DCF model used in tort or takings cases. The objective is to prepare the reader for a hot air balloon ride skimming the tops of the trees for a view from above the forest of income loss cases in federal courts. Part III examines the plaintiff and government expert valuation methods along with arguments made by counsel in the line of HUD cases that litigated regulatory takings of future earnings in federal courts.[15] These HUD cases either denied or delayed the owners' opportunity to convert their properties from regulated

---

10 *See* Edwards Aquifer Auth. v. Day, 369 S.W.3d 814, 839–42 (Tex. 2012). *See also* Joseph Belza, A Texas Takings Trap: How the Court in Edwards Aquifer Authority v. Bragg Fell into a Dangerous Pitfall of Takings Jurisprudence, 43 B.C. ENVTL. AFF. L. REV. 211 (2016).

11 Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1978). (". . . the Court's decisions have identified several factors that have particular significance. The economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations are, of course, relevant considerations. So, too, is the character of the governmental action.").

12 Economic losses must be measured against the "parcel as a whole." Mayhew v. Town of Sunnyvale, 964 S.W.2d 922, 935-36 (citing *Penn. Cent. Transp. Co.*, 438 U.S. at 130-131. This comparison has come to be known as the "takings fraction," which compares the *with* and *without* regulation values as the numerator to the owner's stake in the entire property as the denominator to evaluate the severity of economic impact. Keystone Bituminous Coal Assn. v. Debenedictis, 480 U.S. 470, 497 (1987).

13 Appellees' Response Brief, Edwards Aquifer Auth. v. Bragg, 421 S.W.3d 118, 118 (Tex. App.—San Antonio 2013, pet. denied) (No. 04-11-00018-CV), 2012 WL 9512073, at *23; *see also* Wade, *supra* note 4 (for details about valuation issues within the Braggs' litigation).

14 Cross-Appellants' Reply Brief, Edwards Aquifer Auth. v. Bragg, 421 S.W.3d at 118 (No. 04-11-00018-CV), 2012 WL 9512071, at *4–8.

15 *See infra* Part III, describing various cases.

low-income housing to market rate rentals. The view from above the forest of these cases sheds light on standard economic approaches consistently applied by plaintiff's expert economists and creative approaches proffered by the government to avoid payment of damages. The Article ultimately suggests that standard valuation approaches will lead to a balancing of private water rights with public needs for Texas water supply management.

II. MEASUREMENT OF INCOME LOSSES FOR LOST INCOME CASES

A. FAIR MARKET VALUES CANNOT PROPERLY MEASURE INCOME LOSSES IN TAKINGS CASES

Federal courts typically rely on *Penn Central Transportation Company v. New York City* to determine whether a regulation prohibiting private uses of property is a taking.[16] That 40-year old decision established the well-known three-prong balancing process to examine factors that govern the decision to pay just compensation for unforeseen regulatory intervention in business.[17] The balancing process has come to be known as the *Penn Central test*.[18]

Other than to point out that it embeds two economic prongs within its evaluation, this Article does not delve into the *Penn Central test*.[19] While the balancing is regarded as an "*ad hoc*, factual inquir[y],"[20] two *Penn Central* prongs entail fact-specific economic analyses that must conform to standard peer-reviewed methods: (1) estimation of economic impact; and (2) evaluation of interference with distinct investment-backed expectations (DIBE).[21]

---

16 *Penn. Cent. Transp. Co.*, 438 U.S. at 104.

17 *Id.* at 124. *Lingle v. Chevron* more recently reaffirmed the *Penn Central* three-prong test as its "'polestar'—the principal guidelines—for resolving regulatory takings claims." 544 U.S. 528, 539 (2005) (unanimous decision) (citing Palazzolo v. Rhode Island, 533 U.S. 606, 617–18 (2001) (O'Connor, J., concurring)).

18 *Id. See also* Belza, *supra* note 10 (discussing the original trial court's evaluation of the *Penn Central* test).

19 Thousands of words by hundreds of litigators, judges and scholars including the author have sought to explicate the *Penn Central* test. *See, e.g.*, William W. Wade, *Temporary Takings, Tahoe Sierra and The Denominator Problem*, 43 ENVTL. L. REP. NEWS & ANALYSIS 10189 (2013).

20 *Penn Cent. Transp. Co.*, 438 U.S. at 124.

21 *See generally Penn Cent. Transp. Co.*, 438 U.S. at 124. While clearly *Penn Central* had a benchmark of reasonable financial returns in mind, for no discernible legal or linguistic purpose, Justice Rehnquist changed "distinct" to "reasonable" the year following *Penn Central* in *Kaiser Aetna v. United States*, 444 U.S. 164, 175 (1979). This change has confounded subsequent courts' views of reasonable financial expectations with plaintiffs' reasonable notice of regulatory prohibitions. *E.g.*, Cienega Gardens v. United States, 503 F.3d 1266, 1289 (Fed. Cir. 2007) ("The plaintiffs could not reasonably have expected the change in regulatory approach."). Conversion of *Penn Central's* distinct investment-backed expectations to reasonable notice of rules eviscerated the evaluation of severity of economic impact. Investment-backed expectations, whether "distinct" or "reasonable" must be shown to

Courts that have transubstantiated DIBE into reasonable notice of regulatory intervention nonetheless have adopted economic tests in search of the measure of the severity of the economic impact.[22]

B. Development of Legal Practice Compared to Economic Practice

Economic losses in regulatory taking cases are calculated to evaluate the *Penn Central* economic prongs and determine just compensation. The Supreme Court ruled over 90 years ago that just compensation must provide the "full and perfect equivalent" in money of the impairment to plaintiff's property.[23] This is best expressed by the Court in *United States v. Miller*:

The Fifth Amendment of the Constitution provides that private property shall not be taken for public use without just compensation. Such compensation means the full and perfect equivalent in money of the property taken. The owner is to be put in as good position pecuniarily as he would have occupied if his property had not been taken.[24]

In takings cases involving an income-producing going concern, which has suffered an economic loss as a result of restrictions imposed upon the use of the property, the relevant property right to evaluate is the lost income. Just compensation depends on an assessment of the change in net operating income (NOI) of the business. Just compensation must restore the claimant to the economic position he *anticipated* prior to the disruption.

While economic practice has settled on how to estimate and determine lost income, decisions in the Federal Circuit Court that are discussed in this Article appear to have recast the language of the Fifth Amendment: "Nor Shall Private Property Be Taken for Public Use Without *Just Compensation*"[25] into: "Nor Shall Private Property Be Taken for

---

be frustrated to establish a regulatory taking; *i.e.*, returns must be demonstrated to erode economic viability of the investment in the whole property after imposition of the unanticipated change in regulations.

22 *See* Wade, *supra* note 19, which addresses these tests. *See also* CCA Assocs. v. United States, 75 Fed. Cl. 170, 195 (2007), *vacated in part*, 284 Fed. Appx. 810 (2008). [hereinafter *CCA I*]("Conceptually, courts have employed three different methods of measuring economic impact . . . . One method measures the value taken from the property by regulatory action against the overall initial value. *See* Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 497 (1987) (When considering *Penn Central's* economic impact factor, a court must "compare the value that has been taken from the property with the value that remains in the property."). A second measure looks to the claimant's ability to recoup its capital. *See* Florida Rock Indus., Inc. v. United States, 791 F.2d 893, 905 (Fed. Cir. 1986) ("In determining whether a taking is categorical, 'the owner's opportunity to recoup its investment or better, subject to the regulation, cannot be ignored."). The third method examines a claimant's return on equity under a given regulatory regime in comparison to the return on equity that would be received but for the alleged taking. *See Penn Cent. Transp. Co.*, 438 U.S. at 129 ("capable of earning a reasonable return."); *Cienega VIII*, 331 F.3d at 1342-43. The *Keystone Bituminous* method, while often used, is an erroneous comparison of two values with no determinative denominator for a benchmark.

23 Seaboard Air Line Ry. Co. v. United States, 261 U.S. 299, 304 (1923).

24 United States v. Miller, 317 U.S. 369, 373 (1943).

25 U.S. Const. amend. V. (emphasis added).

Public Use Without *Fair Market Value*. . .." This confusion with appraising FMVs of real property, when lost income is at stake, instead of estimating just compensation, has been going on for some time. The author's rephrasing above is inspired by an award-winning 1973 article by Professor Gideon Kanner.[26] After a typically Kanner-esque learned discussion of issues linked to property market values as the basis for just compensation, Kanner might be said to have tossed in the towel:

One must deal with American rules of just compensation as they exist, bearing in mind, perhaps, Justice Holmes' admonition: 'The life of the law has not been logic; it has been experience.' And the American experience has tended to build on the concept of 'fair market value' as a measure of just compensation.[27]

In contrast to the law, the fabric of economics has accumulated over decades by logic and empirical testing. Economic practice is clear about how to measure just compensation; property FMVs may be considered to apply only to those situations where the real property is condemned, or taken in some fashion, AND its *current* trading value is the relevant measure.[28] Yet, recurrently courts and counsel have relied on FMVs where future income losses are the issue. The issue in *Penn Central*, which remains the "'polestar' . . . for resolving regulatory takings claims,"[29] was the lost future income from foregone development of the commercial office building.[30] I am baffled as to why legal professionals and jurists would rely on a static measure of current property value where the value of future uses is at stake.

The standard for whether a compensable taking has "occurred is a question of law . . . based on factual determinations."[31] Empirical analysis reliant on standard economic methods should govern interpretations of the law. Interpretations of the law should not

---

26 Gideon Kanner, *Condemnation Blight: Just How Just Is Just Compensation?*, 48 NOTRE DAME L. REV. 765, 770 (1973). The article received the 1973 Shattuck Prize from the American Institute of Real Estate Appraisers (AIREA) (now the Appraisal Institute).

27 *Id.* at 773 (quoting O. W. HOLMES, JR., THE COMMON LAW 1 (1881)).

28 *See*, *e.g.*, JAMES C. VAN HORNE, FINANCIAL MANAGEMENT & POLICY, ch. 20 (Prentice Hall, 12th ed. 2001); APPRAISAL INST., THE APPRAISAL OF REAL ESTATE, ch. 20 (12th ed. 2001); SHANNON PRATT ETAL, VALUING A BUSINESS ch. 9 (McGraw-Hill, 4th ed. 2000); PATRICK A. GAUGHAN, MEASURING BUSINESS INTERRUPTION LOSSES AND COMMERCIAL DAMAGES (Wiley, 2nd ed. 2009). These, and other similar texts, define and illustrate financial valuation methods.

29 Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 539 (2005) (citing Palazzolo v. Rhode Island, 533 U.S. 606, 632-34 (2001) (O'Connor, J., concurring)).

30 Through failure of plaintiff's counsel to introduce evidence of the financial effect of the foreclosed UGP lease income from the intended office building in the airspace over Grand Central Terminal, the *Penn Central* majority assumed mistakenly that Grand Central Terminal was earning a reasonable profit, even though the property was in bankruptcy. Overlooking the income from the planned office building of Penn Central's bundle of property rights resulted in the whole edifice becoming a burden on New York taxpayers. *Cf. Penn Cent. Transp. Co.*, 438 U. S. at 141 (Rehnquist, J., dissenting) (noting that "Penn Central was in a precarious financial condition" at the time Grand Central was designated as a landmark and emphasizing the amount of rental payments Penn Central would have received from UGP).

31 Bass Enters. Prod. Co. v. United States, 381 F.3d 1360, 1365 (Fed. Cir. 2004).

govern the applied economic analysis, which should be governed by the expert's choice of valuation tools appropriate for the fact at issue.

C. Just Compensation and Measurement of Damages are Well-Defined by Law and Economic Theory

Real property transactions make the most sense when valued from the perspective of buyers and sellers. Damages based on before and after appraisals of the change in FMV of real property are reasonable where property transfers are at issue. Before and after appraisals are irrelevant for a plaintiff in a taking case who has lost income from proscribed use of the property. The plaintiff's factual basis for that expected income matters to the estimation of just compensation for lost use of the property, not an average property value, or data from recent property market sales selected by an appraiser for income capitalization.

While appraisal approaches may accurately measure a change in market value for real property, they are a blunt tool to measure future economic losses. The change in FMV is aimed at the wrong target, real property, in lieu of the future income stream from the use of the property.

Where lost opportunity is the issue, just compensation is determined with an estimate of future economic losses.[32] The end result of an assessment of lost income is the present value monetary amount that would replace the cash flows that the property owner would have received in the absence of the intervening prohibition.[33] Like legal precedent, expert testimony involving income losses requires adherence to theory established in the economic and valuation literature and standard practice; *i.e.*, it must entail the application of reliable principles and methods to vetted data.[34] Standard economic methods exist to measure correctly and evaluate lost earnings in business and legal settings.

The basic economic methods used to measure damages for lost earnings are presented in a variety of text books and journal articles,[35] and taught in college and graduate school finance classes. Economic losses are generally determined by computing the present value of *future cash flows*. The focus on *future cash flows* parts company with before and after appraisals governed by Uniform Standards of Professional Appraisal Practice (USPAP) rules, which dictate reliance on current market conditions, including data up to three years prior to the effective date of the appraisal.[36] To estimate future

---

32 Michael Rikon, Valuing Real Property in Eminent Domain, Am. Bar Ass'n, http://apps.americanbar.org/dch/thedl.cfm?filename=/RP231000/newsletterpubs/ValuingPropertyEminentDomain1.doc (last visited Mar. 14, 2016).

33 *See generally* Robert M. Lloyd, Discounting Lost Profits in Business Litigation: What Every Lawyer and Judge Needs to Know, 9 Tenn. J. Bus. L. 9 (2007).

34 *See* Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579 (1993).

35 *See generally* Van Horne et al., *supra* note 28.

36 Appraisal Standards Bd., Unif. Standards of Prof'l Appraisal Practice § 1-5 (The Appraisal Found., 2016-2017 ed.), http://www.uspap.org/#1 [hereinafter Unif. Standards of Prof'l Appraisal Practice]. Standards Rule 1-4 directs valuation by Income Approach to rely on currently available information on rental rates, costs and cap rates. Income Statement projections are required to rely on "historical information and trends, current supply and demand factors affecting such trends, and anticipated events such as competition from developments under construction."

cash flows, the expert economist uses appropriate analytic techniques that have been tested in actual situations and peer reviewed.[37]

Unlike appraisers, economists in court settings often can rely on *ex post* data and information available at the time of trial. A much-cited 1992 article by Taurman and Bodington concludes after an exhaustive survey of temporal aspects of valuation, "[t]he historical trend in damages law is toward more detailed inquiry into the particulars of a plaintiff's loss."[38] They wrap up their article by saying "[i]n the hands of juries, the allure of hindsight can be expected to be strong."[39]

FMV, by definition, is measured *ex ante*, and excludes information available from the date of taking to the date of trial.[40] Trial dates in typical federal courts occur years after the taking. Income losses from the date of taking can be estimated *ex post* and benchmarked to the date of taking as the valuation date.

Economists have established widely-accepted DCF economic loss models for valuing lost cash flows. Standard financial evaluation criteria that compare the returns to the owner's investment have been in use over 100 years.[41] *Daubert* standards expect no less than that the expert use the appropriate analytic, peer-reviewed techniques that have undergone testing in actual situations.[42] Expert opinion in a tort or taking case is guided by the correct theories from the expert's discipline. Where income losses are the issue, permanently or temporarily, due to a tort or take, cash flows must be measured with and without the loss-causing disruption.

Appraisers and economists use one similar concept, but with different data sets. Appraisers typically capitalize income based on a single current year, or an average of selected past years, as a way to estimate FMV of the property based on current market conditions.[43] Economists compute the present value of estimated future cash flows to estimate the value of the asset based on expected outcomes.[44] Different data sets distin-

---

37 I like the language from a 2009 6th Circuit decision that an expert must "employ in the court room the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Best v. Lowe's Horne Ctrs., 563 F.3d 171, 177 (6th Cir. 2009) (internal quotation marks omitted) (quoting Kumho Tire Co. v. Carmichael, 526 U.S. 137, 152 (1999).)

38 John D. Taurman & Jeffrey C. Bodington, *Measuring Damage to a Firm's Profitability: Ex Ante or Ex Post?*, 37 ANTITRUST BULL. 57, 105 (1992).

39 *Id.* at 106.

40 *Cf.* UNIF. STANDARDS OF PROF'L APPRAISAL PRACTICE, supra note 36 (unusual circumstances that dictate a "prospective" valuation).

41 "[T]he principles of modern valuation were developed by Irving Fisher in two books that he published – *The Rate of Interest* in 1907 and *The Theory of Interest* in 1930." Aswath Damodaran, *Valuation Approaches and Metrics: A Survey of the Theory and Evidence*, STERN SCH. OF BUS. 5-6 (2006) (citing I. FISHER, THE RATE OF INTEREST (Macmillan, New York 1907); I. FISHER, THE THEORY OF INTEREST (Macmillan, New York 1930)).

42 Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 592-93 (1993). *See also* FED. R. EVID. 702.

43 *Income Capitalization Approach*, PROPEX.COM, http://www.propex.com/C_g_inc.htm (last visited Feb. 28, 2016).

44 Expected Future Cash Flows, thefreedictionary.com, http://financial-dictionary.thefreedictionary.com/Expectedûture©ashłows (last visited Feb. 28, 2016).

guish the results of these two professional approaches. The different data sets reveal that resultant FMV estimates do not measure input data that can determine future losses.

D. Economic Theory, Common Sense, and Supreme Court Precedent Dictate Measurement of Income Losses

First year law students learn that real property is characterized as a bundle of sticks, the sticks representing various rights that accompany ownership, such as the right to sell the property, use it or exclude others from it.[45] So far, so good. Clearly, appraising the FMV of the entire bundle misses the mark when the stick that defines value is the loss of cash flows from the use of the property. That stick is the basis for the value of the bundle for an income producing property.[46]

The theoretically-preferred way to value losses for a taking of income producing property is to calculate the change in net operating income using a cash flow model. Claimant's loss is the future cash flows from the use of the real property that result from the taking. Common sense and a number of case decisions point out that tangible asset (real property) values can increase or decrease in value during the period of loss from a taking for a number of reasons unrelated to the cause of the lost income.[47]

Long ago, the Supreme Court decided three cases that confirm that lost earnings are what matter when an event interrupts an income-producing business operation. Justice Reed called attention to the problem with FMVs as the basis for compensation in the 1951 *Pewee Coal* case: "Market value, despite its difficulties, provides a fairly acceptable test for just compensation **when the property is taken absolutely**. But in the temporary taking of operating properties, market value is too uncertain a measure to have any practical significance."[48] The Court ruled in *CCA Associates*, citing *Peewee Coal*, "the better measure [for temporary possession of a business enterprise] is the operating losses suffered during the temporary period of government control."[49] *Kimball Laundry* reached the same conclusion two years before.

---

45 Anna di Robilant, *Property: A Bundle of Sticks or A Tree?*, 66 Vand. L. Rev. 869, 877 (2013).

46 Government counsel argued otherwise in *Cienega IX*. Defendant's Response to Plaintiffs' Post Trial Brief at 13, Cienega Gardens v. United States, 67 Fed. Cl. 434 (2005), *vacated*, 503 F.3d 1266 (2007) [hereinafter *Cienega IX*] (No. 06-5051) (March 16, 2005). "The change-in-cash flow model has numerous flaws. First, because [the] model only seeks to measure the change in cash flow, it examines only one stick in the bundle of rights. . . . Second, the model fails to consider the properties' overall value." The government failed to recognize that the cash flow from an investment in an income-producing asset is the essential stick in the bundle of rights. The Appraisal Institute's chapter 20, "The Income Capitalization Approach," begins with the following sentence: "Income-producing real estate is typically purchased as an investment and from an investor's point of view earning power is the critical element affecting property value." Appraisal Inst., *supra* note 28; *see also* Van Horne, *supra* note 28. Of course, other unique factors can enter into the ultimate valuation of real property.

47 *See, e.g.*, *CCA I*, 75 Fed. Cl. 170, 200-04 (2007), *vacated in part*, 284 Fed. Appx. 810 (2008).

48 United States v. Pewee Coal, 341 U.S. 114, 119 -120 (1951) (Reed, J., concurring) (emphasis added).

49 *CCA I*, 75 Fed. Cl. at 200 (citing *Pewee Coal*, 341 U.S. at 117).

> [I]f the difference between the market value of the fee on the date of taking and that on the date of return were taken to be the measure, there might frequently be situations in which the owner would receive no compensation whatever because the market value of the property had not decreased during the period of the taker's occupancy.[50]

Real property values can be affected by political and economic forces unrelated to the lost income at issue, which is another reason why FMVs are not reliable measures of just compensation for income losses.

E. Fair Market Values Reflect Current Supply and Demand for Real Property

Economists typically define FMVs as the most likely price that a property should fetch in a current competitive market under specified conditions of exchange between well-informed buyers and sellers.[51] FMV reflects prices that free agents establish for the purposes of exchange under conditions of supply and demand at a particular time.[52] The buyer and seller are each assumed to act prudently and knowledgeably.[53]

Four critical facts about appraising the proscribed use of an income-producing property are at odds with the essential assumptions of a FMV appraisal:

1. Seller is not typically motivated;
2. Seller is well-informed that he is not acting in his best interest;
3. Exchange value set by current supply and demand conditions is irrelevant where future use of the property is at issue;
4. Current supply and demand conditions are unaware of market changes that can affect future income losses.[54]

The standard valuation question to determine "just compensation" for litigation involving an income property is not consistent with FMV: What would the owners have gained if they had been able to carry out their business plans for the property as intended? The answer to this question is the present value amount of future income that measures the economic losses as the basis for just compensation.

1. Appraisals Benchmark Historical Values and are not Based on Future Income Potential

Appraisal standards to establish the FMV dictate that the appraisers rely on contemporary data and information to establish FMVs of buildings at the *effective date of the appraisal*. USPAP standards limit such data to historic information with subsequent information used only to confirm trends at the time of the appraisal[55] Data and information only through the date of appraisal can be used.

---

50 Kimball Laundry v. United States, 338 U. S. 1, 7 (1949).

51 Appraisal Standards Bd., USPAP Advisory Opinions A-75 (The Appraisal Found., 2010-2011 ed.), http://www.vw72.com/Links%20Page/2010-11_USPAP.pdf.

52 William S. Walter, Appraisal Methods and Regulatory Takings: New Directions for Appraisers, Judges, and Economists, 63 APPRAISAL J. 331, 337 (1995).

53 Appraisal Standards Bd., *supra* note 51, at A-75.

54 *See generally* Appraisal Institute, The Appraisal of Real Estate (12th ed., 2001).

55 *See generally* UNIF. STANDARDS OF PROF'L APPRAISAL PRACTICE, *supra* note 36.

Two standard appraisal approaches[56] are used to estimate the FMV of income property at the effective date of an appraisal: (1) the Sales Comparison Approach, which estimates the value based upon a comparison of historic market transactions of similar recently sold properties;[57] and (2) the Income Capitalization Approach, which estimates the property's income potential based on a survey of current market rate rental projects in the area.[58] Typically, the appraiser selects a value (or an average value) from the data, which is then capitalized as the FMV.[59]

Another method, Gross Income Multiplier (GIM) might be characterized as a hybrid of these two in that the appraiser develops data of sales prices for recent comparable properties and relates those values to their respective gross revenues. From his selection of properties, the appraiser derives the GIM, which is a ratio of sales price to gross revenues and then simply multiplies that parameter times the gross stabilized income (*i.e.* gross revenues) of the appraised property to opine about its current FMV.

$$\frac{\text{Sale Price}}{\text{Gross Income}} = \text{Gross Income Multiplier (GIM)}$$

$$\text{FMV} = \text{GIM} * \text{Gross Stabilized Income}$$

Variants of this method exist (*e.g.*, Effective Gross Income Multiplier (EGIM)), but don't change the fact that they rely on current prices and recent income.

Either of the basic methods to establish property FMV requires data and information for comparable properties based on activities of buyers and sellers in the current market. FMV deals with the prices of property in the current or recent past, in contrast to economic value, which is concerned with estimates of future market conditions. By definition, the FMV methodology cannot inform what the owner lost from future operations.

For income capitalization, rental income less collection loss, operating expenses, and replacement reserves from comparable properties typically are captured for a *single year* to represent the effective date of the appraisal.[60] This is used to develop an estimate of the stabilized net operating income; *e.g.*, earnings before interest, tax, depreciation, amortization (EBITDA). EBITDA excludes mortgage interest, income taxes, depreciation and amortization for the building. EBITDA, in turn, is converted to an estimate of the building's FMV by dividing the single year EBITDA_T by the capitalization rate, k. The capitalization rate, k, converts the single year EBITDA into the value of a perpetual stream of *identical* annual results. Of course, lost future income will be affected by myriad economic, demographic, and political winds of change, which assure that future income will not be constant. The Appraisal Institute refers to this single year method as Direct Capitalization[61] calculated in the following equation:

$\text{FMV}_T = [(\text{EBITDA}_T)/k]$

(Where T designates the effective date of valuation.)

---

56 This Article ignores the cost approach and variants of each.

57 *See generally* Appraisal Inst., *supra* note 28, pt. IV.

58 *See generally id.* pt. V.

59 *See generally id.*

60 The interested reader will find details and background for the financial methods mentioned here and discussed generally throughout this Article in the texts cited at *supra* note 28.

61 *See generally* Appraisal Inst., *supra* note 28, at ch. 22.

Appraisers typically derive the cap rate, k, from observed property transactions in the market by rearranging terms in the above equation and evaluating the ratio of EBITDA and comparable property sales prices in the market at the appraisal date. HUD guidelines,[62] which governed valuations in a number of cases over the last decade in federal courts discussed below, require observed current market cap rates over theoretical calculations, such as band-of-investment technique:[63]

$$k = [(EBITDA_T)/FMV]$$

(Where FMV = an average created by the appraiser of recent comparable sale values.)

These remedial equations emphasize that given any two factual values from research of actual market conditions at the time of the appraisal, an appraiser can determine the value of the third parameter for the appraisal date. None of these benchmarks measure future conditions.[64] HUD guidelines, for example, restrict appraised values from any insight into the value of the owner's future lost opportunity.[65]

To emphasize this conclusion, another variant of the valuation equation, used to evaluate business values, includes an assumption about future growth rate, g, of net operating income to account for expected increases in firm income as shown in the equation below. Applied to rental properties, this, of course, would yield higher FMVs to anticipate future income growth:

$$FMV = [(EBITDA_T)/(k\text{-}g)]$$

HUD's Guidelines explicitly require that appraisers use cap rates "based on market data,"[66] which confirms that the FMVs estimated in the HUD cases reflect then-current conditions. Consideration of future economic market conditions is the relevant issue to determine claimants' losses in income loss cases.

---

62 Final Guidelines for Determining Appraisals of Preservation Value Under the Low-Income Housing Preservation & Resident Homeownership Act of 1990, 57 Fed. Reg. 19,970 (May 8, 1992).

63 The band-of-investment method calculates the capitalization rate for an income-generating property using individual rates of interest for properties for both debt and equity, weighted by their financing shares. Assuming that the borrowing rates and the equity rates are derived from financial markets, and not observed property transactions, a band-of-investment cap rate would be equivalent to a weighted average cost of capital (WACC).

64 USPAP allows Prospective Appraisals under specific conditions; such an appraisal has an effective date of the valuation subsequent to the date of the report. Prospective Appraisals relate more to specific expected changes in the existing property rather than an economist's *ex post* estimate of lost earnings from a taking. *See* APPRAISAL STANDARDS BD., UNIF. STANDARDS OF PROF'L APPRAISAL PRACTICE U-76 to U-77 (THE APPRAISAL FOUND., 2014-2015 ed.) (explaining that "[p]rospective value opinions . . . are intended to reflect the current expectations and perceptions of market participants").

65 *See* U.S. DEP'T OF HOUS. & URBAN DEV., VALUATION ANALYSIS FOR SINGLE FAMILY ONE-TO FOUR- UNIT DWELLINGS, DIRECTIVE NO. 4150.2, pt. 3-1 (July 1, 1999), http://portal.hud.gov/hudportal/documents/huddoc?id=41502c3HSGH.pdf (describing appraisal requirements).

66 Final Guidelines for Determining Appraisals of Preservation Value Under the Low-Income Housing Preservation & Resident Homeownership Act of 1990, 57 Fed. Reg. 19,970, 19,985 (May 8, 1992).

2. Just Compensation is Estimated with the Discounted Cash Flow Model as Net Present Value of Lost Income

Economists use a method that looks forward to discover what is lost by the foreclosed uses of property; they use historical data to benchmark current market conditions as a starting point.[67] Research looking back from the time of trial, *ex post*, provides more compelling evidence than research looking back from the time of the tort or take.[68] A standard valuation model measures the Net Present Value (NPV) of the foreclosed opportunity based on actual data.[69]

In contrast to FMV estimated by capitalizing a single recent year (or several-year average) value of EBITDA for a selection of comparable properties, just compensation for economic losses due to proscribed use of the property begins with an estimate of the present value (PV) of the *but for* projected net operating income, $EBITDA_t$, for the N years of the forecast of lost income:

But For Market Income = PV ($EBITDA_{(t = 1\text{-}N)}$)

(Where PV = the present value of the discounted cash $EBITDA_t$ flows.)

Each year's income is discounted with the risk-weighted discount rate, r, appropriate for the business operation at the time and for the duration of the forecast period.[70]

Economic losses for income producing property begin with calculating the present value (PV_o) of lost future cash flows that could have been earned by the property had the owner not been proscribed from conducting his business in the property:

$PV_o = S(CF_t/(1+r)^t)$

Where:

PV_o = present value at benchmark date, o, of cash flows measured over years t=1 thru T, terminal date,

S = summation over years, 1 thru T,

CF_t = annual cash flows (net income less operating costs) for each year,

r = discount rate.

The Appraisal Institute refers to this method as yield capitalization.[71] The discount rate, r, represents the opportunity cost, or yield, of the next best investment opportunity available to investors in income producing properties.[72]

The DCF model allows calculation of both the NPV and the Internal Rate of Return (IRR). These are standard benchmarks used in investment analysis, which in turn can be used to examine the owner's *investment-backed expectations* associated with any property. Economic loss is calculated at the taking date as the difference between the NPV of the projected lost opportunity, less the NPV of the actual outcome. NPV_E equals the Present Value of expected cash flows, PV_o, less the value of the owner's equity, or investment, I_o, in the property at the benchmark date, o, or date of taking:

---

67 *See, e.g.*, Trout & Wade, *The Role of Economics in Regulatory Takings Cases*, Litig. Econ. Digest 1, (1995).

68 *Id.*

69 *Id.*

70 *Id.*

71 Appraisal Inst., *supra* note 28, at ch. 22.

72 Also referred to as the hurdle rate. Abundant literature beginning with the texts cited in note 28, *supra*, define the financial terms above: discount rate, hurdle rate and opportunity cost.

$NPV_E = PV_o$less I_o

The actual outcome may have different causations. In the HUD cases discussed in Part II, where owners were proscribed from converting their properties to market rentals as expected, the actual outcomes often involved the forced sale of the property to a qualified non-profit for an amount derived from the FMV set by appraisal, often after lengthy delay.[73] I will designate the actual outcome as the NPV_A of the appraised FMV after the years of delay, t = 1- end delay, less the value of the owner's equity or investment, I_o, at the benchmark valuation date, o, or taking date:[74]

$NPV_A = PV_o\,(FMV)/(1/(1+r)^t)$ less I_o

Time values of delays are important to discriminate the actual outcomes from the expected NPV_E, calculated at prepayment date. Economic loss as just compensation equals the difference in net present values at the benchmark date, or, in the HUD cases, prepayment date:

Economic loss = NPV_ElessNPV_A

Economic loss, calculated in this manner, by definition encompasses the whole life of the property for both the *with* and *without* scenarios. The Internal Rate of Return (IRR) of each scenario could be calculated to reveal the economic returns in relation to the owner's entire stake in the property investment over its entire life.

III. STANDARD AND NOVEL APPROACHES TO MEASURING JUST COMPENSATION

Dozens of investor groups developed subsidized Department of Housing and Urban Development (HUD) low-income housing projects in the 1970s with the expectation of converting their properties to market rentals at the end of 20 years.[75] In 1987, and again in 1990, Congress, fearful about the loss of a great deal of low-income housing, passed laws to prevent owners of low-income housing projects from converting their properties to market rentals as allowed under the owners' original regulatory agreement.[76] These Preservation Statutes imposed permanent restrictions on property owners' rights to convert to market rentals.[77] With rents restricted under the Preservation Statutes, owners

---

73 This Article is not intended to describe the details of these alternatives nor the detailed calculation nuances. Other outcomes also occurred.

74 Other empirical adjustments were made to FMV that are irrelevant to this Article.

75 Brandon Coan, *Section 108 Loan Guarantees*, MAIN STREET AMERICA (Aug. 2002), http://www.preservationnation.org/main-street/main-street-news/2002/08/section-108-loan-guarantees.html.

76 Low-Income Housing Preservation and Resident Homeownership Act of 1990, 12 U.S.C. §§ 4101–25 (2012) (codified as Title VI within the Cranston-Gonzalez National Affordable Housing Act, Pub. L. No. 101-625, 104 Stat. 4079 (1990)); Emergency Low Income Housing Preservation Act of 1987, Pub. L. No. 100-242, §§ 201–263, 101 Stat. 1877 (1988) (codified as Title II within the Housing and Community Development Act of 1987, Pub. L. No. 100-242, 101 Stat. 1815 (1988)). Any of the cited HUD cases provide the legislative history not repeated here. The two laws are collectively referred to as "Preservation Statutes."

77 *See generally* statutes cited *supra* note 76.

earned substantially less than they anticipated in their original contract with HUD. This led to an ongoing series of lawsuits alleging both contract and takings claims.

Following standard textbook support for measurement of income losses, plaintiffs consistently introduced expert testimony based on lost income in Federal Claims court trials to measure just compensation and deal with the *Penn Central test*.[78] Government counsel initially introduced lost income testimony, but subsequently introduced novel approaches to measure *Penn Central*'s economic prongs and just compensation. Government counsel repeatedly argued that before-and-after FMV appraisals of a property represent the best measure of financial loss incurred by the plaintiffs and provide information needed to evaluate the economic prongs within the *Penn Central test*.

Where income loss was the issue that prompted the plaintiffs' complaints and became a hotly contested issue, the contrast between the government's use of novel economic methods and the plaintiffs' consistent economic testimony in these cases provides a useful view into trial court measurement and appellate court evaluation of just compensation in federal courts.

A. *Cienega VIII* Adopted Standard Economic Measurement of Income Losses

The first of these cases, *Cienega Gardens v. United States*,[79] culminated with the June 2003 Federal Circuit decision for the plaintiffs in *Cienega VIII*.[80] The *Cienega VIII* decision confirmed that economic values and damages must be measured with reference to plaintiffs' rental income losses.[81] The decision made clear that profit—meaning recoupment of the investment plus a reasonable return—is a factor to consider in assessing economic impact of a regulation.[82]

---

78 *See*, *e.g.*, Steven J. Eagle, *"Economic Impact" In Regulatory Takings Law*, 19 Hastings W.-N.W. J. Envtl. L. & Pol'y 407, 439.

79 *Cienega Gardens* entered the courts as a contract case with a finding of liability for the plaintiffs. Cienega Gardens v. United States, 33 Fed. Cl. 196 (1995) [hereinafter *Cienega I*]. Four *model plaintiffs* were then selected for the purposes of litigating the damages trial on the breach of contract claim. The trial court awarded the *model plaintiffs* $3,061,107 in the damages trial. Cienega Gardens v. United States, 38 Fed. Cl. 64 (1997) [hereinafter *Cienega II*]. *Cienega III* in the Federal Circuit overturned *Cienega II*, holding that privity of contract did not exist between owners and HUD with respect to prepayment of mortgage loans, vacated the contract claims and remanded. Cienega Gardens v. United States, 194 F.3d 1231 (Fed. Cir. 1998.) [hereinafter *Cienega III*]. The case subsequently was retried as a regulatory takings case and ultimately decided in 2003. Cienega Gardens v. United States, 331 F.3d 1319 (Fed. Cir. 2003) [hereinafter *Cienega VIII*].

80 *Cienega VIII*, 331 F.3d 1319. The decision was based on economic testimony in *Cienega II*, 38 Fed. Cl. at 74–82.

81 *Cienega VIII*, 331 F.3d at 1341. ("[T]he trial court [in *Cienega II*] already made findings of fact that are dispositive of the question of economic impact. The parties offered extensive evidence . . . in the damages trial. The fact-finding in that trial was sufficient in scope and depth to permit an economic impact analysis here because the trial court awarded damages for breach of contract based on a lost profits theory." (citations omitted)).

82 *Id.* ("The lost profits proof, thus, also led to many findings with direct relevance to a *Penn Central* economic impact analysis.").

The decision in *Cienega VIII* was based on economic testimony in *Cienega II*. In *Cienega II*, both the plaintiffs' and the government's experts calculated the present value of the market conversion and the actual outcome scenarios, and used the income differential approach to calculate damages.[83] Both experts measured damages as the difference between the present value of the rental income plaintiffs actually received and the projected operating cash flows under market conditions.[84] The government's real estate economist employed myriad different assumptions than the plaintiffs' economist; government counsel attempted to chisel away at plaintiff economist's assumptions, unsuccessfully.[85]

The decision concluded that "[p]laintiffs' damages model is comprehensive, reliable, and based on objective, verifiable HUD and industry data. In contrast, defendant's economic model is subjective and plagued by admitted errors, material omissions, and incorrect assumptions."[86] The *Cienega VIII* decision relied on plaintiff economist's estimate of annual earnings after the regulatory imposition.[87]

B. *INDEPENDENCE PARK* DETERMINED DAMAGES FOR PROPERTIES NOT ADDRESSED BY *CIENEGA VIII*

Independence Park Apartments, et al. v. United States,[88] was an offshoot of *Cienega VIII*, which previously decided that the plaintiffs had suffered a temporary taking and awarded damages. Damages were the only issue at trial for this second group of properties; *Cienega VIII* established damages only for the four Model Plaintiffs.[89]

The government flip-flopped and changed its position on damages. Government counsel now asked the court to reject the lost income basis for the original *Cienega II* damages award[90] and "to adopt the damages model presented by their expert witness."[91] The government's expert now estimated damages based solely on the interest for the present value of foregone net rents and excluded any compensation for the lost net rental income itself.[92]

Plaintiffs' expert calculated damages in the standard manner as the present value of lost rental income as a result of owners' inability to convert to market rental rates.[93] This model by the hold-over *Cienega VIII* expert formed the basis for the court's original damages judgment in *Cienega II*.[94]

---

83 *Cienega II*, 38 Fed. Cl. 64.
84 *Id.* at 76.
85 *See id.* at 75-78.
86 *Cienega III*, 38 Fed. Cl. at 89.
87 *Cienega VIII*, 331 F.3d at 1342 (citing *Cienega III*, 38 Fed. Cl. at 75).
88 Indep. Park Apartments v. United States, 61 Fed. Cl. 692 (2004), *rev'd*, 449 F.3d 1235 (Fed. Cir. 2006).
89 *Cienega VIII*, 331 F.3d 1324.
90 *Cienega II*, 38 Fed. Cl. at 85-89.
91 *Indep. Park Apartments*, 61 Fed. Cl. at 706.
92 *Id.*
93 *Id.*
94 *Id.* (citing *Cienega II*, "The basic structure of [plaintiff's] model formed the basis for this court's original damages judgment in *Cienega II*.").

In *Independence Park*, the government attacked the plaintiff expert's approach as a "lost profits" model.[95] Indeed, *Cienega VIII* had explicitly characterized the approach as a lost profits method and cited to *Cienega II's* steps to prove lost profits: "It required the . . . Plaintiffs to prove, and made findings of fact for each of three prongs in a lost profits test: (A) causation, (B) contemplation, and (C) certainty."[96]

The court rejected the government's objection to the "lost profits" aspects of plaintiffs' model, concluding, "the plaintiffs' foregone rent increases are the best available indicator for determining just compensation."[97] The court rejected the government expert's "interest only" approach as the basis for just compensation.[98] His model ignored the lost rental income plaintiffs would have received but for the taking.

Readers familiar with the body of federal regulatory takings case law will recognize that the government expert's estimate of foregone interest in place of foregone rental earnings was based on *Yuba Natural Resources, Inc. v. United States*.[99] *Yuba* was about delay in permitting a gold mine, which was not yet a going concern, at the end of which the owner was free to commence mining gold ore intact.[100] "Importantly, at the end of the taking period in *Yuba*, the plaintiff retained all the gold it had initially possessed and was free to do with the gold as it liked. Thus, the benefits adhering to the property were simply delayed by the taking without disrupting or altering an on-going business, and the just compensation award paid for that delay."[101]

At trial, the government expert's conversion of *Yuba's* delay of income to the *Independence Park* plaintiffs' interest on foregone earnings measured by the owner's opportunity cost of money was not analogous to the *Yuba* ruling. In fact, the plain language ruling in *Yuba* states "The usual measure of just compensation for a temporary taking . . . is the fair rental value of the property for the period of the taking."[102]

---

95 *Indep. Park Apartments*, 61 Fed. Cl. at 708.

96 *Cienega VIII*, 331 F.3d at 1341 (citing *Cienega III*, 38 Fed. Cl. at 73).

97 *Indep. Park Apartments*, 61 Fed. Cl. at 708. *See* Rose Acre Farms, Inc. v. United States, 373 F.3d 1177, 1188-89 (Fed. Cir. 2004) ("where . . . the issue concerns the economic impact, albeit temporary, of government regulations on a going business concern[,]" a returns-based analysis may be more suitable than one based on diminution in value); and Kimball Laundry v. United States,, 338 U.S. 1, 15 (1949) ("[W]hen the Government has taken the temporary use of [a going concern], it would be unfair to deny compensation for a demonstrable loss of going-concern value.").

98 *Indep. Park Apartments*, 61 Fed. Cl. at 708.

99 Yuba Nat. Res., Inc. v. United States, 904 F.2d 1577, 1581 (Fed. Cir. 1990) [hereinafter *Yuba*]. ("The usual measure of just compensation for a temporary taking . . . is the fair rental value of the property taken for the period of the taking.") The *Yuba* decision rejected plaintiff's contention that "just compensation consists of the difference in value of the gold during the taking period compared to the value of that gold subsequently." Of course, fair rental value for income producing property is not calculated by interest rates stand-alone.

100 *See generally id.*

101 *Indep. Park Apartments*, 61 Fed. Cl. at 706 (citing *Yuba*, 904 F.2d at 1582), *rev'd and remanded*, 449 F.3d 1235 (Fed. Cir. 2006) (". . . [T]here was no existing business or going concern that the government took. There was only a proposed agreement which, had there been no taking, presumably ultimately would have developed into an existing mining operation. Even that was not certain, however.").

102 *Yuba*, 904 F.2d at 1581.

Pertinent to the entire line of the HUD lost income cases, the government's damages expert "conceded at trial that a property owner who suffered a temporary taking of his or her rental property would be entitled to receive rents that he or she had been forced to forego."[103] Thus, both the plaintiff's and government's experts agreed that plaintiff's income losses were the proper measure of just compensation.[104] However, the present value of foregone rent increases is the appropriate basis for just compensation of plaintiffs' losses. Interpretation of the law should not govern applied economic analysis. Standard economic methods that conform to *Daubert* requirements should be applied within legal cases based on the facts.

C. *CIENEGA IX* LITIGATED THE REMAINING CIENEGA PROPERTIES

Cienega IX[105] was litigated jointly with *Chancellor Manor v. United States*,[106] each containing groups of low-income HUD rental properties that entered the Court with *Cienega I*. Each group was represented by separate counsel with different economic experts. The Cienega group relied on the same expert from *Cienega VIII* and *Independence Park*. The Chancellor Manor group, which contained properties in Minnesota, retained a local professor of real estate finance. Both of these experts applied similar DCF models and calculated losses based on the factual details of each property's proscribed opportunity to convert to market rentals at the end of 20 years.

1. *PLAINTIFF AND GOVERNMENT EXPERT TESTIMONY*

The government retained an appraiser, who "testified as to the value of the plaintiffs' apartment buildings on the initial prepayment date (1) free of restrictions on prepayment, and (2) with the delay in prepayment assumed by the plaintiffs' damages model."[107] Thus, he estimated FMV, with and without the delay caused by HUD.

The government also retained an economic expert who used the appraisals to calculate the economic impact from the alleged delay in conversion to market rentals, based on the diminution in property value approach.[108] He concluded that, at most, the Cienega properties were diminished in value between 13.3 and 28.8 percent, reported in context with the economic prongs of the *Penn Central test*.[109]

To estimate economic damages, the government economist repeated the *Yuba* error that was tossed out in the *Independence Park* decision. He calculated the present value of

---

103 *Indep. Park Apartments*, 61 Fed. Cl. at 707, n.13. I find it hard to imagine how an economist initially construed the interest on lost income to make the plaintiffs "whole" when clearly textbook economics would require a payment of the lost income *plus* appropriate interest. Yuba's lost interest as time value of delay of the start-up gold mine has no relevance to the going concern rental business with actual lost rental income.

104 *Id.*

105 *Cienega IX*, 67 Fed. Cl. 434 (2005), *vacated,* 503 F.3d 1266 (2007).

106 Chancellor Manor v. United States, 67 Fed. Cl. 434 (2005), *vacated*, 503 F.3d 1266 (2007) (decided jointly with *Cienega IX*). The author testified for Chancellor Manor plaintiffs on the economic elements of the *Penn Central test* and damages, relying on the real estate calculations by a local Minnesota expert.

107 Brief for Defendant-Appellant, *Cienega IX*, 67 Fed. Cl. 434 (2005) (No. 06-5051), 2006 WL 1865580, at *41.

108 *Id.* at *41-42.

109 *Id.* at *64 (citing to Transcript at 4149-51 (Hamm)).

expected cash flows in the but-for world over the entire 20-year life of the property that was allegedly taken by the government.[110] He labeled his estimate as the market value of the property, and then applied an interest rate to the value of this property during the taking period, following *Yuba*.[111] The government labeled this result the *Fair Rental Value*,[112] misconstruing Yuba's foregone time value of delayed start-up for actual lost rental income.

The government's expert proposed an award that amounted to interest for the delayed receipt of the income stream, repeating the *Yuba* error.[113] The government expert's model incorrectly assumed that what was taken from plaintiffs was exactly the same as what was returned to plaintiffs; this ignored plaintiffs' permanent loss of years of income. On cross, the government expert conceded, like his counterpart in *Independence Park*, that his model made no attempt to compensate plaintiffs for the loss of the cash flows from the original prepayment eligibility date.[114] His model paid the interest on the damages, but not damages.[115]

Government counsel, mis-focused on property values as the basis for measuring economic impact, argued that the plaintiff expert's model misused *ex post* information to determine the lost income as the basis for damages.[116] "Because the objective of providing just compensation is measuring the value of the property taken at the time of the taking, a just compensation model should rely solely upon *ex ante* information."[117]

Real property FMVs estimated by appraisers are, of course, properly based on the information the market would have had at the date of the appraisal. However, lost rental income from the use of the buildings, not the buildings themselves, was taken. In the delay from the date of taking to trial date, a lot of useful data and rental market information became available, which the plaintiff's expert used.[118] *Ex ante* FMVs of buildings

---

110 *Id.* at *42, *55. *See also* Indep. Park Apartments v. United States, 465 F.3d 1308, 1311 (Fed. Cir. 2006).

111 *Id.* at *42, *64 (citing to Transcript 4146-51 Hamm); *see also Yuba*, 904 F.2d at 1581.

112 Brief for Defendant-Appellant, *Cienega IX*, 67 Fed. Cl. 434 (2005) (No. 06-5051), 2006 WL 1865580, at *62 (Italics added to highlight this unique definition of FRV compared to the standard term Fair Market Rent (FMR)).

113 *Id.* (citing Transcript at 4234:11-18 Hamm).

114 *See supra* note 103.

115 The appraiser based part of his FMV valuation on actual market rents. I cannot guess why the economic expert did not rely on the difference between market and regulated rents during the taking period, which were in the appraiser's testimony, to estimate the lost income. Reliance on the *Yuba* case in place of standard economic practice governed his erroneous calculation of "*FRV*." HUD, by the way, defines FMR in its "Fair Market Rents for the Section 8 Housing Assistance Payments Program" guidance document. ". . .Not surprisingly, HUD's FMR value is based on "gross rent estimates," not interest. *See also* U.S. DEP'T HOUS. AND URBAN DEV., http://www.huduser.org/portal/datasets/fmr.html (last visited Feb. 21, 2016).

116 Brief for Defendant-Appellant, *Cienega IX*, 67 Fed. Cl. 434 (2005) (No. 06-5051), 2006 WL 1865580, at *66.

117 *Id.* at *67.

118 *See* Michael J. Wagner et al., *Ex Ante Versus Ex Post Damages Calculation*, *in* LITIGATION SERVICES HANDBOOK: THE ROLE OF THE FINANCIAL EXPERT, 8.1, 8.17 (Roman L. Weil et al. eds., 4th ed. 2007).

deal with current property values, and are irrelevant to computing lost future income as damages, which are easily observed within the period of delay from date of taking to trial date.

I based *Chancellor Manor*'s damages calculations on a DCF model. I used Chancellor Manor's local real estate expert's data to examine the economic prongs of *Penn Central* and compute lost profits incurred by plaintiffs.[119] I computed damages as the present value of the difference between foregone market rental income, less actual HUD regulated results for each property.[120]

Cienega Gardens' expert, who testified in the earlier *Cienega* cases, estimated the loss by comparing market rental income to the regulated HUD rentals, the same as *Chancellor Manor*'s expert.[121] Plaintiffs' post trial brief cites the government's expert agreement that the proper measure of the rental value of commercial property would be "the value of the profits that a reasonable person would expect to generate from [the property] in the future."[122] The government damages model did not measure that rental value.

2. *CIENEGA IX* REAFFIRMED THE USE OF STANDARD ECONOMIC MODELS

Citing *United States v. Miller*,[123] the *Cienega IX* decision in 2005 invoked just compensation under the Fifth Amendment as the amount of money that places the owner "in as good [a] position pecuniarily as he would have occupied if his property had not been taken."[124] The court concluded that plaintiffs were unable to charge market rents for their properties during the course of the taking, and that this measure of compensation most closely approximates "the rental [the plaintiffs] could have obtained."[125]

The decision rejected the government expert's estimate of just compensation based on the interest on the foregone rental income and not the lost income *per se*.[126] Why exactly the government proffered this theory of damages a second time is baffling, given that the theory failed in *Independence Park*.[127] The court ruled that "plaintiffs' [lost in-

---

119 Ex. 469: Amended Expert Report: *Penn Central* Tests For Chancellor Manor Properties, November 15, 2004, Chancellor Manor v. United States, 331 F.3d 891 (2003) (No. 02-5066) (on file with author).

120 Ex. 474: Rebuttal Report: Revised Damage Estimates for Chancellor Manor Properties, December 5, 2004, *Chancellor Manor*, 331 F.3d 891 (No. 02-5066) (on file with author).

121 Plaintiffs' Post Trial Memorandum, at 68, February 23, 2005, *Cienega IX*, 67 Fed. Cl. 434 (2005) (No. 06-5051). "The proper measure of just compensation for a temporary taking is the fair market rent that the landowner could have earned on the property during the takings period. *See, e.g.*, United States v. Petty Motor Co., 327 U.S. 372, 381 (1946); United States v. Gen. Motors Corp., 323 U.S. 373, 379 (1945); Kimball Laundry Co. v. United States, 338 U.S. 1, 5-7 (1949)." This definition of fair market rental value (FMR) trumps the government counsel labeling of interest on rental returns as FRV.

122 Plaintiffs' Post Trial Memorandum, at 70, February 23, 2005, *Cienega IX*, 67 Fed. Cl. 434 (2005) (No. 06-5051) (citing to Transcript 4171:12–72:5 (Hamm)).

123 *Miller*, 317 U.S. at 373.

124 *Cienega IX*, 67 Fed. Cl. at 483.

125 *Id.* (citing to *Kimball Laundry Co.*, 338 U.S. at 7).

126 *See id.* at 483-94.

127 Indep. Park Apartments v. United States, 61 Fed. Cl. 692, 706-08 (2004), *rev'd*, 449 F.3d 1235 (Fed. Cir. 2006).

come] models by each expert are conceptually sound as a basis for measuring compensation and that the government's proffered interest-only model fails to provide just compensation to the plaintiffs for the rental value they would have received had they prepaid."[128] Had *Daubert* been invoked in *Independence Park*, the court likely would not have repeated the same error committed in *Yuba*.

The Preservation Statutes, which prevented owners of low-income housing projects from converting their properties to market rentals after 20 years as expected, took business income, not buildings. The government repeatedly conflated the use of market valuation approaches for real property with techniques to value income losses from the use of the property. Rejecting that argument, the *Cienega IX* decision in the Court of Federal Claims concluded that "the return-on-equity approach best measures the impact of [lost income during the taking] on the plaintiffs. Measuring an owner's return on equity better demonstrates the economic impact [of] temporary takings of income-generating property than a measurement of the change in fair market value."[129] Just compensation was awarded as the present value of lost profits.

D. *Rose Acre Farms* Conflated Relevance of Change-In-Value for *Penn Central* Prongs and Just Compensation

Rose Acre Farms complained about its loss of table egg sales due to government restrictions.[130] For health concerns, the United States Department of Agriculture (USDA) had required Rose Acre to send 57.75 million dozen eggs to the breaker market, where they were pasteurized and sold as breaker eggs, rather than to the more lucrative table egg market.[131] Rose Acre filed a regulatory taking claim.[132]

In what the record reveals to be a rough ride through the perils of *Penn Central*, *Rose Acre Farms* slogged through a morass of confused and confounding economic approaches to Penn Central's investment-backed expectations prong for four more trials. Economic testimony, counsel argument and court decisions of *Rose Acre Farms'* saga are salient to this discussion. Out of the economic confusion by all involved, *Rose Acre Farms* gave birth to misinterpreted language that continues to inflict bad economics on claimants.

Rose Acre Farms differs from the HUD line of cases in that plaintiff suffered past egg sale losses, not future rental income losses. Plaintiff and their counsel might have anticipated that their expert, a prominent agricultural economist,[133] need only estimate these losses with factual data and counsel would argue that plaintiff's required actions to with-

128 *Cienega IX*, 67 Fed. Cl. 434, 484 (2005).

129 *Id.* at 475 (citing *Kimball Laundry Co.*, 338 U.S. at 7).

130 Rose Acre Farms, Inc. v. United States, 559 F.3d 1260, 1262-65 (Fed. Cir. 2009) [hereinafter *Rose Acre V*]. Rose Acre Farms made two round trips between the Claims Court and the Federal Circuit arguing whether the economic impact should be calculated by diminution in value analysis or by diminution in returns. Cases cited are: Rose Acre Farms, Inc. v. United States, 75 Fed. Cl. 527 (2007) [hereinafter *Rose Acre IV*]; Rose Acre Farms, Inc. v. United States, 373 F.3d 1177 (Fed. Cir. 2004) [hereinafter *Rose Acre III*]; Rose Acre Farms, Inc. v. United States, 53 Fed. Cl. 504 (2002), [hereinafter *Rose Acre I*]; *superseded by* 55 Fed. Cl. 643 (2003) [hereinafter *Rose Acre II*].

131 *Rose Acre V*, 559 F.3d at 1263–64.

132 *Rose Acre I*, 53 Fed. Cl. at 519.

133 *See id.*

hold the sale of eggs into their highest valued market would surmount the *Penn Central test*. After all, Rose Acre Farm diverted its eggs, despite no showing of salmonella infection, to the pasteurized market to benefit the public by protecting against the risk of illness; Rose Acre Farms did not inflict a nuisance on society.[134]

The Federal Claims and Federal Circuit Courts heard *Rose Acre Farms* twice; each time the Claims Court found a taking and the Federal Circuit reversed.[135] Opposing counsel in *Rose Acre Farms* hopelessly confounded the courts' understanding of the economic facts of the case. The line of *Rose Acre Farms* cases do not produce any clear standard benchmark for judging the severity of economic impact. The government's arguments and application misapplied the only sensible economic finding in those cases: that at least two ways exist to evaluate the severity of regulatory restriction. The Federal Circuit never parsed the appropriate use of either of the "two ways" between cases dealing with taking of real property compared to cases with income losses. Nor did the decision recognize that the change in income for income-producing properties required ties to the owner's equity to have any decisive merit.[136] *Rose Acre Farms* is the prime example of how misuse and lack of understanding of standard economic valuation methods creates bad case law.[137]

After the Federal Circuit published its decision in *Rose Acre III*,[138] government counsel in the HUD cases seized on its language, "two ways to compare the value of the restriction to the value of the property as a whole . . . to determine if there has been

---

134 *Id.* at 524.

135 *Rose Acre III* remanded for reconsideration of the severity of the economic impact. Standard economic approaches are hopelessly muddled within both of the two courts' decisions. Both the plaintiff and government economic testimony ignored standard financial analysis and produced no relevant calculations to evaluate the investment-backed expectations prong of the *Penn Central* test.

136 The interested reader will not find a more economically confused record and decision than *Rose Acre IV*, No. 92-710C, 2007 WL 5177409 (Fed. Cl. July 11, 2007), and *Rose Acre V*, 559 F.3d 1260, (Fed. Cir. 2009). *Rose Acre V* decided that Rose Acre Farms did not suffer a compensable taking. *Rose Acre V*, 559 F.3d at 1262. The author has written about the saga of *Rose Acre Farms* twice: William Wade, *"Sophistical and Abstruse Formulas" Made Simple: Advances in Measurement of Penn Central's Economic Prongs and Estimation of Economic Damages in Federal Claims and Circuit Courts*, 38 THE URBAN LAWYER 337 (2006); William Wade, *Penn Central's Ad Hocery Yields Inconsistent Takings Decisions*, 42 THE URBAN LAWYER 549 (2010). Standard economic approaches are hopelessly muddled within all of the two courts' decisions. The two experts did agree on the financial loss due to lost egg sales. Each adopted non-standard evaluation methods beyond that, which confounded the courts as to the severity of economic impact and led to a decision for the government when, in fact, Rose Acre Farms losses were severe.

137 For another example of how *Rose Acre* can lead to misinterpretation of standard economic analysis to lead astray legal practitioners, *see* William Wade, *Misconstruing Size of Economic Impacts as the Determinant of Penn Central Test Does Not Invoke Average Reciprocity of Advantage*, 21 HASTINGS W.-NW. J. ENVTL. LAW 197 (2015).

138 *See* Reply Brief for Defendant-Appellant, the United States, *Cienega IX*, 67 Fed. Cl. 434 (2006) (No. 06-5051), 2006 WL 3846647.

severe economic loss;" diminution in value and diminution in return.[139] The Federal Circuit's remand to evaluate the proper measurement of "severity of economic impact" gave impetus to government counsel's recurrent reliance on change in FMV as the mistaken basis for estimating income losses and "severity of economic impact" in the *Penn Central test*.[140] Government counsel mistakenly relied thereafter on the "two ways," even after the final decision in *Rose Acre V*.[141]

E. *CCA Associates* Provides Contrast of the Effect of the Two Loss Measurement Approaches

CCA Associates v. United States[142] ("*CCA I*") followed *Cienega IX* to trial. The case dealt with a single low-income HUD rental property in New Orleans, which, like the Cienega and Chancellor properties, was denied the right to convert to market rentals after 20 years in the HUD program.[143] This 2007 decision in the Court of Federal Claims reiterated the appropriateness of lost income as the basis to measure economic impact: "[Return on Equity] 'best measures the impact . . . on' the owners'. . . properties because the alleged taking involves lost streams of income at an operating property, not the physical transfer of a piece of undeveloped property to the government and subsequent return of that property to the owner."[144] The decision provides another example of government counsel's continued misuse of measurement of property values in lieu of lost income.

1. Plaintiff and Government Expert Testimony

CCA's expert properly estimated damages as "the difference between the cash flow CCA would have received had it been allowed to . . . operate the property as a conventional apartment complex and the cash flow CCA actually received from operating the property as a HUD-restricted property."[145]

The government proffered another novel way to use its change in property value approach to economic losses. It relied on a real estate appraiser to perform a retrospective appraisal of the CCA property under two stated scenarios: (1) the appraised market value of the property at the beginning of the takings period, 1991, assuming that the owner could have converted to market rate operations immediately; and (2) the appraised market value of the property at the same valuation date, *but* assuming that conversion to market rate operation was delayed until 1996.[146] The appraisal expert projected market rents for each year of each period, subtracted the rental income that

---

139 *Id.* at *17, where return implies change in income to diminish the owner's return on investment as proffered by plaintiffs, or by percent loss of gross revenues as countered by government counsel.

140 The reader might remember that the *Penn Central* decision rests on an unrebutted error that the Penn Central Rail Road was earning a reasonable return, when, in fact, it was in bankruptcy. *See* Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 106 (1978).

141 *Rose Acre V*, 559 F.3d 1260 (Fed. Cir. 2009).

142 *CCA I*, 75 Fed. Cl. 170 (2007), *vacated in part*, 284 Fed. Appx. 810 (2008).

143 *Id.* at 179.

144 *Id.* at 195-96 (citing *Cienega VIII*, 331 F.3d 1319, 1342 (Fed. Cir. 2003).

145 *See* Brief for Appellee-Respondent *CCA I*, 284 Fed. Appx. 810 (2008) (No. 97-334C).

146 *Id.*

CCA was expected to earn under the HUD program, and discounted the difference back to the date of valuation, 1991.[147]

Instead of characterizing the present value of the difference in income as a measure of lost income, which would have made some financial sense,[148] the government expert subtracted the amount from the 1991 FMV appraisal, determined this to be an amount equal to 18.1 percent of the property value, and labeled that the change in value of the property.[149] This misdirected and confounded the percent of loss benchmark away from the owners' lost income and its effect on the owners' investment at stake.

Benchmarking the loss to the 1991 appraised value of the property confounded the fact that this caused a significant loss of return to the owners' equity. Keep in mind that typically 75% of the property value is the mortgage owed to the bank. Comparing the income loss to the market value of the property instead of to the owners' equity had the effect of diminishing the magnitude of the impact to the owners.[150] No economic theory supports the comparison of lost income to real property value as a relevant financial decision criterion for these income loss cases. The standard benchmark is return on equity, not return on property value. Yet, in CCA, the government persisted in its argument that change in property value, not change in economic returns to the owners' equity is the relevant measure of severity of economic impact. The government's assertion that the resulting 18.1 percent diminution in value was too small to surmount *Penn Central's* economic impact benchmark was an unrebutted economic error that came back in *CCA III* to the detriment of the plaintiff in *CCA IV*.

2. *CCA I* Decision Relied on Plaintiff's Lost Earnings

Citing to *Cienega VIII*, the Federal Claims Court concluded that "[T]he better measure [for temporary possession of a business enterprise is] the operating losses suffered during the temporary period of government control."[151] The decision found an 81.25 percent diminution of return on equity over the five-year taking period based on comparing lost rental income to reported equity values for each year.[152]

The decision discussed extensive case law that disavows the change in market value of the real estate to measure income losses including a bedrock citation to *Kimball Laundry*: "[M]easuring the economic impact by assessing the change in fair market value runs the risk of substantially understating the effect on the owner's property interest."[153] The *CCA I* decision concludes with the four-page recitation of the law and precedent supporting its decision by upbraiding the government: "[i]n all the circumstances, the gov-

147 *Id.*

148 Assuming an *ex ante* guess about future market rents.

149 *Id.*

150 But that's another story related to denominators and *Penn Central*, not just compensation. The interested reader is referred to the author's article, Wade, *supra* note 19.

151 *CCA I*, 75 Fed. Cl. 170, 200 (2007), *vacated in part*, 284 Fed. Appx. 810 (2008).

152 *Id.* at 199. Along the way, Judge Lettow once again chastised the government for its persistent argument against the return on equity method: "In resisting the return-on-equity approach and favoring the change-in-value method of economic analysis, the government manifestly errs by suggesting that in *Cienega VIII* the Federal Circuit broke new ground in Fifth Amendment Takings Clause jurisprudence. . .The return-on-equity approach was relatively novel at one time-over fifty years ago-but not today." *Id.*

153 *Id.* (citing Kimball Laundry Co. v. United States, 338 U.S. 1, 7 (1949)).

ernment's objections to use of the return-on-equity approach for measuring economic impact are not well received."[154]

The government appealed, arguing that the appraised value of the building declined only 18.1 percent, too little to justify a taking.[155] Part of its extensive brief invoked *Tahoe-Sierra's* parcel as a temporal whole to argue that "[t]he trial court erred when it evaluated the alleged economic impact of CCA's takings claim using a return on equity approach, rather than a change in value approach."[156]

Before the Federal Circuit issued its *CCA II* decision,[157] its game-changing *Cienega X* opinion[158] altered *Cienega VIII*'s focus on lost income to evaluate the economic prongs of *Penn Central*. In its *Cienega X* decision, the court adopted the government's argument that *Tahoe-Sierra*'s parcel as a temporal whole directs the *Penn Central* economic prongs toward before and after real property valuations.[159] *Cienega X* overturned the carefully developed analytic approach to the *Penn Central test* laid out in *Cienega VIII*, reversing *Cienega IX*. The *CCA II* short decision merely remanded the 2007 *CCA I* decision "for further consideration in accordance with *Cienega X*."[160]

F. *Cienega X* Reversed a Decade-Old Standard of Measuring Economic Loss

Cienega X invoked *Tahoe-Sierra*[161] to overturn *Cienega VIII*'s analytic approach to measure economic impacts, reversing *Cienega IX*.[162] The decision addressed whether valuation of the lost income from use of the plaintiff's property or valuation of the change

154 *CCA I*, 75 Fed. Cl. at 197.

155 Brief for Defendant-Appellant, the United States, CCA Associates v. United States, 284 Fed. Appx. 810 (Fed. Cir. 2008) [hereinafter *CCA II*] (No. 2007-5094), at 43, 2007 WL 2734357. (". . . [N]o court has found a regulatory taking under *Penn Central* where economic impact did not exceed 50 percent.") Reply Brief of Defendant-Appellant and Response to the Brief of Plaintiff-Cross Appellant, CCA Assocs. v. United States, 284 Fed. Appx. 810 (2008) (Nos. 2010-5100, 2010-5101), 2010 WL 5560229, at *4.

156 Brief for Defendant-Appellant, the United States, *CCA II*, *supra* note 155, at 44. ("The Court's return on equity approach is flawed because it disregards the well-established principle that the analysis of economic impact must consider the property as a whole."). *See* Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. 302, 331–32 (2002).

157 *CCA II*, 284 Fed. Appx. 810.

158 Cienega Gardens v. United States, 503 F.3d 1266 (Fed. Cir. 2007) [hereinafter *Cienega X*].

159 *Id.* at 1281 (citing *Tahoe-Sierra Pres. Council, Inc.*, 535 U.S. 302) (ruling that the economic impact of the loss of income had to be evaluated in context with the value of the business as a whole "just as it is in the context of a permanent regulatory taking."). The decision failed to understand time value of money. The recovery of value of the land assets of Tahoe-Sierra's plaintiffs' undeveloped lots is not a competent comparison to a business' ability to resume operations after the end of the regulatory prohibition. Income lost in time is not restored as if by magic.

160 *CCA II*, 284 Fed. App'x. at 811.

161 *Tahoe-Sierra Pres. Council, Inc.*, 535 U.S. at 331–32 ("An interest in real property is defined by the metes and bounds that describe its geographic dimensions and the term of years that describes the temporal aspect of the owner's interest.").

162 *Cienega X*, 503 F.3d at 1291 (vacating *Cienega IX*). *See also CCA II*, 284 Fed. App'x. at 811 (citing *Cienega X*) (vacating in part *CCA I*).

in real property value before and after the government imposition is more appropriate in application of *Penn Central*. The panel ruled that the economic impact of the loss of income had to be evaluated in context with the value of the business as a whole "just as it is in the context of a permanent regulatory taking."[163] The court proposed two possible ways "to compare the value of the restriction to the value of the property as a whole."[164]

> First, a comparison could be made between the market value of the property with and without the restrictions on the date that the restriction began (the change in value approach). The other approach is to compare the lost net income due to the restriction (discounted to present value at the date the restriction was imposed) with the total net income without the restriction *over the entire useful life of the property* (again discounted to present value).[165]

Part II of this Article demonstrated that comparison of two market values of real property do not measure the lost future income suffered by the plaintiff. This approach to lost income is misdirected to current property values, not lost future income amounts. *Cienega X's* second approach, however, explicitly measures the lost income. The language can be clarified to show that the panel endorsed measurement of lost income over the life of the owner's investment in the property:

> Economic Loss = PV [(total net income without the restriction over the entire useful life of the property) less (actual net income due to the restriction)]
>
> (Where PV = Discounted to present value at the date the restriction was imposed.)

Cienega X went further, however, and adopted the comparison of the two income streams to measure the percent change as a benchmark to measure the "severity of economic impact" within the *Penn Central test*.[166] Comparing two income streams to each other is adequate proof of income loss; but, for a competent application of the *Penn Central test*'s three prongs, which was the focus in *Cienega X*, each income stream has to be compared to the owner's investment in the property. This benchmark reveals whether the government imposition reduces returns to owner's investment sufficiently to frustrate investment-backed expectations. *Cienega X* misconstrued the present value of the future earnings of the property over the Cienega properties' taking periods as the denominator in the *Penn Central test*, a financially confused fatal error[167] that resulted in sharp ex-

163 *Cienega X*, 503 F.3d at 1281.

164 *Id.* at 1282.

165 *Id.* (emphasis added to call attention to the *entire useful life* phrase).

166 *Cienega X*, 503 F.3d at 1278 (citing to *Rose Acre Farms*, 373 F.3d at 1188, for fateful language about two ways to measure severity: comparing market value with the restriction to value without; comparing lost net income to net income without the restriction.)

167 *Id.* at 1280–82.

changes among circuit judges[168] and millions of dollars of damages from *Cienega IX* to be overturned.[169]

Cienega X's invocation of the lifetime earnings of the property made one standard decision criterion, internal rate of return (IRR), a correct financial benchmark to overcome the government's recurrent objection to annual book rate of returns. The *Cienega X* appellate panel concluded that the annual calculations offended *Tahoe Sierra's* temporal whole requirement.[170] The IRR measures economic values of the change in income over the whole life of the property and does not offend *Tahoe Sierra's* temporal whole. The NPV of cash flows for the *with* and *without* scenarios is an even more robust comparison of the change in the owners' economic prospects.[171]

G. *CCA III* and *IV* Confirm that Bad Economics Led to Bad Law

CCA Associates v. Unites States returned to the Federal Claims Court as the first test of *Cienega X's* two ways to measure economic impacts.[172] The parties stipulated that CCA suffered an economic impact of 18.1 percent as a result of the "Preservation Statutes" during the 5-year period of the taking.[173] "The parties did not present [new] evidence at trial that would enable the court to apply . . . [*Cienega X's*] second [way to measure economic impact]. Although there is evidence of the 'lost net income due to the restriction,' [$714,430] there is no evidence as to 'the total net income without the restriction over the entire useful life of the property.'"[174]

Plaintiff's counsel relied on the $714,430 in lost income for the 104-unit apartment complex concentrated within a 5-year taking period, reflecting an 80% income loss for that period (the stipulated 18% loss in the value of the property), and described the result as a severe loss.[175]

The 2010 remand decision ignored the government's witness and again found for the plaintiff:

> As a result of the temporary taking, and considering the entire, whole, useful life of [its apartment complex], CCA suffered an 18% economic loss in its total market value. In determining how far is 'too far,' there is 'no magic number,' and 'no set formula.' . . . The duration of the deprivation, five years and ten days, is significant in this regard. . . . The economic loss suffered here, when combined with the character of the government's actions and CCA's reasonable invest-

168 *Id.* at 1291–92, 1295 (Newman, P. dissenting) ("This panel has no authority to revoke our prior decision in *Cienega VIII*. . . . The creative theories propounded by my colleagues for redetermining whether a taking occurred ignore the law of this case. . . . I must, respectfully, dissent.").

169 *Cienega X*, 503 F.3d at 1291. ("[W]e vacate and remand for a new *Penn Central* analysis under the correct legal standard. . . .").

170 *Id.*

171 *See* Van Horne, *supra* note 28, at 144-45 (discussing NPV as the preferred evaluation criterion because it reveals the scale of absolute returns over the life of a project).

172 CCA Associates v. United States, 91 Fed. Cl. 580, 603 (2010) [hereinafter *CCA III*].

173 See id.

174 *CCA III*, 91 Fed. Cl. at 612 (citing *Cienega X*, 503 F.3d at 1282).

175 *Id.* at 612-13.

ment-backed expectations, which both factor heavily in CCA's favor, is sufficient to establish that CCA suffered a temporary regulatory taking.[176]

The 18.1 percent mistaken benchmark remained in the record and the government appealed as before; no one acknowledged that comparing the 18.1 percent loss of income to the building FMV instead of to the owner's actual equity stake in the property at the taking date was not a competent decision criterion. It did not reveal whether the owner enjoyed an adequate return on investment or not under the HUD-regulated rental income. The extent of frustration of the owner's investment-backed expectations remains missing from the record.

In the 2011 Federal Circuit *CCA IV* decision, the panel majority, while following *Cienega X*'s denominator precedent, made clear that the result of *Cienega X*'s analytic approach ran afoul of long-standing precedent, "which would eliminate all regulatory takings. Quite frankly, the selection of the *denominator* in these cases . . . determine[s] the severity of the economic impact."[177] A comparison of two values of a property or two income streams from the use of the property does not include a theoretical valuation benchmark, or denominator, which would be the owner's equity stake in the property at the date of taking.

To paraphrase and amend language from the *CCA III* trial court decision, "The government believes that a return-on-equity analysis provides only a 'snapshot' at a given point in time and does not adequately take into account the duration of the taking."[178] "However, the government's proffered metaphor is mistaken and misleading. Rather than a snapshot, the [*internal rate of return*] approach . . . closely resembles a composite, long-exposure photograph taken over the entire period of the . . . taking."[179]

IV. CONCLUSION

Skimming over these HUD lost income cases, the view from above the forest reveals that a series of plaintiffs' economists all employed the standard DCF model to estimate lost income. Decisions at the Federal Claims Courts discussed above agreed with each other and with plaintiffs' economists that this approach was correct.

Government counsel initially retained an expert in *Cienega I* & *II* who employed the same standard textbook model. When reliance on the standard DCF model in *Cienega VIII* failed, government experts adopted a series of novel approaches that arose not from economic practice, but from case decisions. Two government experts applied the *Yuba* "lost interest on present value of lost income" theory in *Independence Park* and *Cienega IX*. Likely, the measurement of lost interest in lieu of lost income would not have survived a *Daubert* challenge the first time out.

---

176 *Id.* at 618-19 (internal citations omitted).

177 CCA Associates v. United States, 667 F.3d 1239, 1247 (Fed. Cir. 2011) [hereinafter CCA *IV*].

178 Brief for Defendant, at 38, *CCA IV*, 667 F.3d at 1247.

179 *CCA III*, 91 Fed. Cl. 580, 618-19. (The inserted phrase in italics replaces the general term, return on equity, with the precisely defined internal rate of return calculation.)

After *Rose Acre Farms*, government counsel relied on the misuse of property values to measure lost income. While the *Cienega IX* decision was not beguiled by the government's change in property value to measure economic impact, *Cienega X* cited to *Rose Acre Farms III*[180] in its reversal. *Rose Acre Farms III* allowed government counsel to define economic methods that displaced standard economic theories with novel ideas. Standard economic theory, not legal sophistry, should be relied upon to benchmark severity of economic impact.

Part of the confusion over when to rely on change in property value or change in income from use of the property stems from failure of the courts to discriminate between the property interest taken by the regulation at issue – the tangible assets or the intangible assets. Confusion of valuation approaches for tangible real property cases and the intangible use of the property has led government presentations away from standard valuation estimates of lost income. Lost use of property is measured by lost earnings or lost income, not change in real property value.

Regardless of whether counsel correctly acknowledges the owner's investment in the property as the proper denominator to measure the owner's stake in the property as a whole, the economic impact has to be measured by standard *Daubert*-vetted methods. Where the loss is foregone income, the correct method is that employed by the plaintiffs' experts in the HUD line of cases: present value of lost income based on the DCF model.

The March 2016 *Braggs v. EAA* remand decision made the same mistake, directing appraisals of land values where income losses were at stake, which is inconsistent with standard valuation practice for lost income cases. When courts ask the wrong questions, they get incorrect answers. Unfortunately, wrong results can create precedent for more bad law. *Penn Central* takings cases entail a balancing of private property rights and public benefits. This cannot be achieved without competent economic approaches to value the private and public stakes in a sustainable water supply for Texas future.[181]

William W. Wade, Ph. D. is a water resource economist with an interest in the economic underpinnings of regulatory takings law. He served as expert financial economist for plaintiff counsel in Palazzolo v. State, No. WM-88-0297, (R.I. Super. Ct. July 5, 2005), and Chancellor Manor v. United States, 67 Fed. Cl. 434 (2005), and in other cases.

Suggestions and corrections acknowledged with thanks from Dr. Robert Trout, LitEcon, San Diego CA; and Ms. Deborah Trejo, partner in the Kemp Smith, LLP, Environmental, Water and Utilities Law Department, Austin TX. The usual exonerations for remaining errors apply.

180 *Cienega X*, 503 F.3d 1266, 1278 (Fed. Cir. 2007) (citing *Rose Acre III* 373 F.3d 1177, 1188 (Fed. Cir. 2004) ("there are a number of different ways to measure the severity of the impact of the restrictions.").

181 *See* Belza, *supra* note 10, at 211 ("If other courts adopt the *Bragg* interpretation of the *Penn Central* test, the doctrine of invalid regulatory takings will expand beyond its reasonable bounds. The resultant obligation by government agencies to compensate the individuals and industries they regulate could cripple lawmaking efforts, especially environmental regulation.").

Substance Over Style: Ultra-Local Water Conservation and Property Owners Associations

By Katherine Leuschel

I. Introduction

Stephen Bender thought he was doing right by Texas when he replaced the grass on his lawn with yucca plants, gravel, and river stones; after all, the city of Coppell, where Bender lives, encourages the use of drought-resistant landscaping.[1] However, the

1 David Schecter, *HOA forces homeowner to rip out existing xeriscaping*, WFAA (Jun. 15, 2015) http://www.wfaa.com/story/news/local/2015/06/15/hoa-xeriscaping-remove-drought-tolerant/28781329/ [https://perma.cc/FVK8-VJZT] (last visited Jan. 24, 2016).

Riverchase Homeowners Association (Riverchase), which owns the subdivision in which Bender lives, disagreed. Riverchase ordered Bender to remove his landscaping and replace it with green grass at his own expense because he had not submitted his landscaping plans for prior review.[2] Riverchase made this declaration although Texas law limits a property owners (or homeowners) association from rejecting drought-limiting landscaping;[3] they claimed that the law did not apply in this case because Bender never submitted his plans for approval in the first place.[4] Despite the fact that Bender's landscaping saved thousands of gallons of water a year, his property owners association tied his hands since his lawn was "not consistent with the neighborhood's design."[5] Bender, facing enormous pressure, did not challenge Riverchase's assertion, even though the association's access flew in the face of the Texas Property Code.[6]

Property owners associations (POAs) are notorious for impinging upon an individual homeowner's ability to use her property as she sees fit. However, as the story of Stephen Bender shows, the actions of the property owners association can make the leap from annoying to dangerous. One may not believe that there is much danger in tearing up an individual lawn, but when that action is aggregated to include all lawns that contain water-saving plants and systems, the impact is clear: property owners associations prevent water conservation at the ultra-local level. Despite Texas laws limiting their power to do so,[7] property owners associations seem devoted to finding legal loopholes in the name of enforcing their own traditional – if outdated – view of common neighborhood aesthetics.

This Note explores the problem that property owners associations pose to ultra-local water conservation. In Part II, the Note first explains how individual property owners can engage in ultra-local water conservation. Part III provides an outline of what property owners associations do and how they are governed by Texas laws. In Part IV, the Note examines successful examples of how cities are encouraging ultra-local water conservation through a variety of avenues, including municipal ordinances, rebate programs, and opportunities for education. Part V analyzes how these successful examples could be applied throughout Texas to curtail property owners associations' ability to limit ultra-local water conservation and to provide greater incentives for water conservation, in general.

II. ULTRA-LOCAL CONSERVATION

A well-known example of ultra-local water conservation is that of turning off the faucet while brushing one's teeth. True, smart use of appliances is an effective means of conservation. However, the major water-wasting culprit at an individual residence is the outdoor irrigation system. Between 50-70% of residential water usage is attributable to

2 *Id.*
3 TEX. PROP. CODE ANN. § 202.007 (2015).
4 Schecter, *supra* note 1.
5 *Id.*
6 *Id.*; *see also* TEX. PROP. CODE ANN. § 202.007.
7 *See* TEX. PROP. CODE ANN. § 202.007.

landscaping, with much of that water used to irrigate lawns.[8] The average suburban lawn consumes 10,000 gallons of water per year to maintain its lush, green state.[9] Cutting down on a landscape's exorbitant water needs is a highly effective way to conserve water at the household level and can be accomplished through a variety of means.

A. Efficient Irrigation

The most effective way to conserve water in the landscaping context is simply to cease watering one's lawn; however, landscaping requirements of various subdivisions, as well as the personal desire to maintain a well-manicured lawn, make cessation of all watering practically infeasible. By using more efficient methods of irrigation, such as manual watering and drip irrigation, a household can greatly improve its water efficiency by reducing the amount of water used to maintain its landscaping.

One of the simplest ways to conserve water is by manually watering a lawn with a hand-held hose. Manual watering allows for easy avoidance of overwatering as long as a nozzle is attached to a hose to control the flow.[10] Households that water manually use, on average, 33% less water than households that use automatic sprinkler systems.[11] Flow control nozzles are inexpensive and easy to install on all standard garden hoses since they attach directly to the hose with no extra hardware required.[12] However, manual watering does require adequate time for the homeowner to water the lawn as well as knowledge of the appropriate amount of water for the landscape.

---

8 *Garden for Wildlife: Cut Your Lawn in Half*, Nat'l Wildlife Fed., http://www.nwf.org/How-to-Help/Garden-for-Wildlife/Gardening-Tips/Cut-Your-Lawn-In-Half.aspx [https://perma.cc/CKG4-EG6Y] (last visited Jan. 24, 2016).

9 EPA, *Water-Efficient Landscaping: Preventing Pollution & Using Resources Wisely*, Envtl. Prot. Agency, http://nepis.epa.gov/Exe/ZyNET.exe/200043WG.txt?ZyActionD=ZyDocument&Client=EPA&Index=2000%20Thru%202005&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&UseQField=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5CZYFILES%5CINDEX%20DATA%5C00THRU05%5CTXT%5C00000005%5C200043WG.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p%7Cf&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1 [https://perma.cc/J99Q-N7XW] (last visited Feb. 28, 2016).

10 *Efficient Irrigation*, Water: Use It Wisely, http://wateruseitwisely.com/100-ways-to-conserve/landscape-care/principles-of-xeriscape-design/efficient-irrigation/ [https://perma.cc/7CXG-BJA7] (last visited Jan. 24, 2016).

11 City of Oklahoma City Utilities Department, *Types of Sprinkler Systems*, Squeeze Every Drop, http://squeezeeverydrop.com/SavingWaterOutdoors/LawnIrrigation/TypesofSprinklerSystems.aspx [https://perma.cc/7X4T-FKNN] (last visited Feb. 28, 2016).

12 *See, e.g.*, Lowe's, *Garden Hose Nozzles & Wands*, Lowes.com, http://www.lowes.com/Watering-Irrigation-Drainage/Garden-Hoses-Accessories/Garden-Hose-Nozzles-Wands/_/N-1z0wg6z/pl#!&N%5B%5D=1z0wg6z&N%5B%5D=1z116gq [https://perma.cc/29PY-AUXB] (last visited Feb. 28, 2016).

Drip irrigation delivers water directly to the roots of the plants by releasing small amounts of water over an extended period of time.[13] This high-frequency, low-volume watering keeps a more efficient soil moisture level than other traditional methods of watering, such as sprinkler and flood watering, due to the fact that drip irrigation keeps the moisture at a constant level, instead of saturating the soil and allowing it to dry.[14] Not only does drip irrigation prevent waste in the form of runoff, flooding and evaporation, but it also allows the plants to have constant access to oxygen since the surrounding soil is never completely soaked.[15] With proper management, drip irrigation can reduce water loss by up to 60 percent as compared to traditional watering systems.[16] Drip irrigation systems, while more expensive than buying a nozzle for manual watering, are simple to install and recoup their costs over time in the form of water savings.[17] However, drip irrigation is best suited for watering shrubs, ornamental trees, and vines; it is not well-suited for shallow-rooted plants like grasses, which reap greater benefits from traditional sprinkler irrigation.[18]

The efficiency of both watering systems can be improved through the use of certain techniques, such as watering during the early morning hours to decrease evaporation, watering deeply-rooted plants like shrubs less often than shallow-rooted plants like grass, and adding mulch and compost to the soil to increase water retention and reduce evaporation.[19] A landscape's water efficiency can also be improved by the use of greywater, or reclaimed water, in the watering process. Greywater is gently-used water from sinks and washing machines that has not come into contact with fecal matter.[20] While this water is not suitable for drinking, it is generally safe to use for lawn irrigation.[21] Recycling greywater reduces a household's water use and limits use of potable water on lawns that could be otherwise used for drinking or bathing.[22] Some water providers place limitations on greywater use and water reclamation. The specifics of greywater capture are detailed below.

---

13 *Chapter 6: Drip Irrigation*, FOOD & AGRIC. ORG., https://perma.cc/B7VW-PZQG (last visited Jan. 24, 2016).

14 Larry Stein & Doug Walsh, *Efficient Use of Water in the Garden and Landscape*, TEX. A&M AGRILIFE EXTENSION, http://www.fao.org/docrep/s8684e/s8684e07.htm [https://perma.cc/M5TH-EWGS] (last visited Jan. 24. 2016).

15 *Id.*

16 *Id.*

17 Laura Fisher Kaiser, *Water-Saving Irrigation Strategies*, HOUSELOGIC.COM (Sept. 21, 2009), http://www.houselogic.com/home-advice/saving-water/water-saving-irrigation-strategies/ [https://perma.cc/XU2M-M358]; *see also* THE HOME DEPOT, *Drip Irrigation*, http://www.homedepot.com/c/drip_irrigation_HT_BG_OD [https://perma.cc/9KHA-8LNW] (last visited Jan. 24, 2016).

18 Stein & Walsh, *supra* note 14.

19 *Efficient Irrigation*, *supra* note 10.

20 *About Greywater Reuse*, GREYWATER ACTION, http://greywateraction.org/contentabout-greywater-reuse/ [https://perma.cc/2AP2-HBPY] (last visited Jan. 24, 2016).

21 *Id.*

22 *Id.*

B. Rainwater Harvesting

Rainwater harvesting is the accumulation and retention of rainwater for use onsite, rather than allowing it to run off the property.[23] Rainwater harvesting systems feature six major components: a catchment surface (such as a roof) where rainfall runs off; gutters and downspouts that act as channels to the collection device; screens to remove debris and dust from captured rainwater before it is collected; storage tanks or cisterns to collect the rainwater; delivery systems to transfer the water to its end use; and (optionally) purification systems to make the water safe to drink.[24] The efficiency of a rainwater harvesting system is determined by the makeup of these components. For example, a metal roof will allow for more efficient rainwater collection due to its smooth, non-porous nature.[25] Costs to install rainwater harvesting systems vary, though the largest expense is the cost of the tank, which can range from $0.50 per gallon to $4.00 per gallon.[26]

Though rainwater harvesting provides the greatest boon to the homeowner in conservation and extension of existing resources, it has many other benefits. Rainwater is fairly pure and soft[27] and is free of any man-made by-products or chemicals typically added to water in centralized water supply systems.[28] Plants tend to grow better when irrigated with rainwater rather than city tap water.[29] Widespread rainwater harvesting also helps reduce utility bills and stressors on city water and electric plants during times of peak demand.[30] In Texas, rainwater harvesting equipment is also exempt from state sales tax,[31] and homeowners may receive additional county tax exemptions for installing rainwater harvesting systems.[32]

Rainwater harvesting is not without its challenges. Beyond the initial cost for materials, any rainwater harvesting system connected to a public supply system and used for

---

23 *An Introduction to Rainwater Harvesting*, Glob. Dev. Research Ctr., http://www.gdrc.org/uem/water/rainwater/introduction.html [https://perma.cc/7TPV-BC8R] (last visited Jan. 24, 2016).

24 Tex. Water Dev. Bd., The Texas Manual on Rainwater Harvesting 5 (2005), http://www.twdb.texas.gov/publications/brochures/conservation/doc/RainwaterHarvestingManual_3rdedition.pdf [https://perma.cc/M26N-DFXC] (last visited Jan. 24, 2016). Some homeowners will choose to skip the purification system if only using the water for irrigation, which is highly cost-effective.

25 *Id.* at 6.

26 *Id.* at 45.

27 Soft water has a fairly low concentration of calcium and magnesium ions and does not form build-up calcification on pipes. *See Soft Water*, Encyclopedia Britannica (2014).

28 *Frequently Asked Questions*, Tex. Water Dev. Bd., http://www.twdb.texas.gov/innovativewater/rainwater/faq.asp [https://perma.cc/3ZEA-53B4] (last visited Jan. 24, 2016).

29 *Id.* A homeowner wishing to use captured water for irrigation purposes would want to skip installation of a purification system.

30 *Frequently Asked Questions*, *supra* note 28.

31 Tex. Tax Code § 151.355 (2015).

32 *See*, *e.g.*, The Texas Manual on Rainwater Harvesting, *supra* note 24, at 54. Hays County grants property tax exemptions from county taxes for the value of the rainwater harvesting system if the system is the sole source of water for a residence and provides a $100 rebate on the development application fee when installing a new rainwater harvesting system.

production of potable water must be installed by a plumber who has been licensed by and received an endorsement as a water supply specialist from the Texas State Board of Plumbing Examiners.[33] Additionally, due to the unpredictable nature of rainfall, the majority of homeowners cannot completely rely on rainwater harvesting as a long-term source of water.[34] Lastly, because most rainwater harvesting systems are above-ground, they may take up a large amount of lawn space, reducing the amount of lawn available for recreation or possibly violating deed restrictions on the property against placement of structures.[35] In addition, rainwater harvesting is not legal in all states.[36]

C. Xeriscaping

Xeriscaping, also known as water-conserving or drought-tolerant landscaping, is a type of landscaping that reduces the need for supplemental water from irrigation.[37] The underlying principle of xeriscaping is focusing the landscape design around conservation rather than aesthetics, including the use of native plant life and limiting traditional grassy areas.[38] In addition to increasing a homeowner's ability to conserve water, xeriscaping has added benefits, in that it is low-maintenance.[39] Due to reduced turf area on xeriscaped properties, little to no mowing is necessary.[40] Native plants rarely require replacement and require little fertilizer or pesticide application because they are suited to local weather and soil conditions.[41]

Traditional hindrances to xeriscaping include cost and aesthetics. Many homeowners are accustomed to the traditional green lawn. However, education about water conservation and the ultimate environmental and cost-saving roles that xeriscaping can play can greatly improve the homeowner's perception of xeriscaping.[42] The hindrance to xer-

---

33 TEX. HEALTH & SAFETY CODE ANN. § 341.042 (2015).

34 *Frequently Asked Questions*, *supra* note 28.

35 *Id.*

36 *See, e.g.*, Rainwater, Graywater, and Stormwater, COLO. DIV. OF NAT. RESOURCES, http://water.state.co.us/SURFACEWATER/SWRIGHTS/Pages/RainwaterGraywater.aspx [https://perma.cc/7RVM-DTBU] (last visited May 3, 2016).

37 Maureen McCracken, *Xeriscape: An Introduction*, MASTER GARDENERS OF MECKLENBURG CNTY., http://www.mastergardenersmecklenburg.org/xeriscape-an-introduction.html [https://perma.cc/JCY6-34S8] (last visited Jan. 24, 2016).

38 *The 7 Principles of Xeriscaping*, EARTHEASY, http://eartheasy.com/grow_xeriscape.htm [https://perma.cc/DF9G-S443] (last visited Jan. 24, 2016).

39 McCracken, *supra* note 36.

40 *Id.*

41 *Id.* Note that this assumption may not hold in cases of extreme weather, such as the prolific 2011 drought and the 2015 Memorial Day floods experienced in the City of Austin. *See generally* John W. Nielsen-Gammon, *The 2011 Texas Drought*, 3 TEX. WATER JOURNAL 59 (2012) (discussing the impact of the 2011 drought on Texas vegetation); Dan Solomon, *The Central Texas Memorial Day Flood 2015 is One for the History Books*, TEXAS MONTHLY (May 26, 2015), http://www.texasmonthly.com/the-daily-post/the-central-texas-memorial-day-flood-2015-is-one-for-the-history-books/ [https://perma.cc/AJY8-P77D] (last visited Jan. 24, 2016).

42 Cynthia McKenny & Robert Terry, Jr., *The Effectiveness of Using Workshops to Change Audience Perspective of and Attitudes about Xeriscaping*, 5 HOT TECHNOLOGY 4 (1995), https://www.researchgate.net/publication/266443861_The_Effectiveness_of_Using_Workshops_to

iscaping is that of property restrictions adopted by homeowners associations (HOAs) that have strict rules about landscaping and establish the minimum amount of turf a homeowner must install.[43]

III. Property Owners Associations and the Texas Property Code

A. An Overview of the Property Owners Association

A property owners association, also known as a homeowners association, is a corporation formed by a real estate developer that markets, sells, and manages homes within a residential subdivision.[44] It is not to be confused with a neighborhood association, a group of residents within a subdivision that organizes activities for the neighborhood, that has voluntary membership.[45] As this Note pertains specifically to Texas, the powers of the POA discussed below are only those of Texas POAs; other states treat POAs and their powers differently in their respective legal regimes.

POAs consist of a board of directors that are elected or appointed in accordance with the POA's bylaws; most often, the initial board of directors is appointed by the subdivision's real estate developer.[46] In addition to managing and selling the residential properties contained within the subdivision, POAs have several other powers and duties, including the management of common space within the subdivision, the regulation of activities that occur within the subdivision, and the collection of assessments to fund the POA's upkeep of the subdivision.[47]

One of the most important powers held by the POA is the power to institute restrictive covenants, also known as deed restrictions, on all properties contained within the subdivision.[48] Deed restrictions are private, contractual covenants that limit the use of land.[49] Most restrictions put in place by a POA on association-controlled property include mandatory assessments by the POA, limitations on the use of the property, performance standards for design and construction undertaken on the property, and approval by the POA architectural committee of all construction, typically including

---

_Change_Audience_Perception_of_and_Attitudes_about_Xeriscaping [https://perma.cc/6DRU-SV69].

43 Kate Galbraith, *Texas Bills Aim to Douse HOA's Limits on Xeriscaping*, The Texas Tribune (Jan. 31, 2013), http://www.texastribune.org/2013/01/31/texas-legislation-would-restrict-hoas-love-grass/ [https://perma.cc/GB92-7DVQ].

44 Tex. Prop. Code § 204.004(a) (2016).

45 *See, e.g.*, Neighborhood Associations, City of Madison, http://www.cityofmadison.com/neighborhoods/neighborassoc.htm [https://perma.cc/Q2XT-5BR6] (last visited Feb. 28, 2016).

46 Tex. Prop. Code § 204.004(c) (2016).

47 *Id.* § 204.010.

48 *Id.*

49 Reid C. Wilson, *Private Land Use Regulation: Deed Restrictions* 1, Wilson, Gibbs, Goren & Flaum, P.C., http://www.slate.com/articles/technology/future_tense/2014/03/tucson_tries_to_reinvent_itself_in_the_face_of_a_drought.html [https://perma.cc/847S-4DHD] (last visited Mar. 6, 2016).

landscaping, to enforce the POA's use restrictions and aesthetic standards.[50] The POA must give notice of any deed restrictions to the potential homeowner no later than ten business days after the POA receives a request for subdivision purchasing information.[51] Any deed restrictions and their enforcement by the POA are presumed reasonable unless a court determines, by a preponderance of the evidence, that the POA restrictions or enforcement of those restrictions is arbitrary, capricious, or discriminatory.[52]

Practically, this means that it is very difficult for a homeowner who lives within a POA-controlled subdivision to avoid any restrictions contained within the deed to his property. The fact that the majority of POA properties contain deed restrictions greatly limits homeowners within subdivisions across the state; these restrictions can prevent the homeowner from building his home to a certain height, installing certain plants, or constructing fences of a certain height or other specified types of structures.[53] Additionally, since a POA, unlike a neighborhood association, usually consists of a board appointed by a real estate developer, the POA and the neighborhood residents may not agree on what actions are in the best interest of the neighborhood. However, even if an individual homeowner or many neighborhood residents disagree with the formal positions of a POA, modifying the restrictions that attach to each property is a difficult task. Though residents can circulate a petition to modify extant restrictions, they must do so subject to approval of the POA; however, if at least three residents band together to form a petition committee, they may circulate a petition for modification of deed restrictions independently of the POA.[54] After circulation, a petition is only effective if it receives signatures from seventy-five percent of the property owners within the subdivision and is filed with the county clerk of the county in which the subdivision is located.[55]

POAs are not without their benefits. They provide services for general neighborhood upkeep and landscaping and often provide recreational facilities and security services for their residents.[56] Additionally, the Texas Residential Property Owners Protection Act ("Act")[57] provides safeguards for individual homeowners in a subdivision against potentially unfair practices of a POA. Notably, the Act requires POAs to have meetings open to residents, forbids restriction on an individual homeowner's ability to run for a POA board position, and requires notice of any restriction violations before institution of enforcement actions.[58] Though the Act does not place direct limitations on a POA's abil-

---

50 *Id.*

51 TEX. PROP. CODE § 207.003(a) (2016).

52 *Id.* § 202.004(a). For example, the POA could not institute restrictive covenants preventing persons of color from purchasing property in the subdivision. Shelley v. Kraemer, 334 U.S. 1, 20 (1948).

53 *See, e.g.*, *Oak Ridge Estates Applicable Restrictions, Covenants, and Reservations*, OAK RIDGE ESTATES POA, http://www.oakridgeestatestxpoa.com/uploads/3/4/7/4/34742795/ore_deed_restrictions.pdf [https://perma.cc/DHM3-H39T] (last visited Jan. 24, 2016).

54 TEX. PROP. CODE §§ 204.005(a), 210.004(a).

55 *Id.* § 204.005(b). Petition committees may successfully garner approval with a slightly lower vote of sixty-six percent if certain conditions are met. *Id.* § 210.006(a).

56 *Id.* § 204.010.

57 The Texas Residential Property Owners Protection Act, TEX. PROP. CODE §§ 209.001-.016 (2016).

58 TEX. PROP. CODE §§ 209.0051, 209.00591, 209.006.

ity to adopt deed restrictions, it does provide a check on the POA's power by making POA processes more transparent and accessible to individual homeowners. This is useful to homeowners who wish to change their landscaping in several ways. For example, they can raise concerns or complaints about landscaping restrictions at POA meetings and run for a position on the POA board to directly impact the POA's present landscaping restrictions, if elected.

B. Texas Property Code Section 202.007

In recent years, the Texas Legislature has taken steps to limit the power of the POA, which has created greater opportunities for the individual homeowner to conserve water on his property.[59] The legislature made the most important change to the powers of the POA in Section 202.007 of the Property Code, which forbids the POA from prohibiting: (1) installation of rain barrels and rainwater harvesting systems; (2) implementation of an efficient irrigation system; and (3) the use of drought-resistant landscaping or natural turf.[60] However, though it limits a POA's ability to ban certain conservation measures, the POA may still impose regulations concerning the installation of any of these systems, including limitations for "aesthetic purposes."[61]

Practically, this means that a POA has several ways to limit the installation of a rainwater harvesting system. The POA may deny installation of a rain barrel if it is made of a certain material, located at a point where it is visible from the street, or clashes with the color scheme of the individual property owner's home.[62] Additionally, the POA can require its pre-approval of a detailed plan for the installation of drought-resistant landscaping.[63]

Though the POA is prohibited from "unreasonably deny[ing]" installation of drought-resistant landscaping,[64] courts have historically erred on the side of the POA when deciding what sort of restrictions are reasonable.[65] However, it is worth noting that

---

59 *See, e.g.*, Texas Residential Property Owners Protection Act, Tex. Prop. Code §§ 209.001-.016 (2016); Summary of the 2011 HOA Law Reforms Enacted by the Texas Legislature, Schumann, Johnson, McGarr, Kaminski & Shirley LLP (2011), http://www.texashoalaw.com/wp-content/uploads/2012/09/SSJM-Summary-of-the-2011-HOA-Law-Reforms-Enacted-by-the-Texas-Legislature.pdf [https://perma.cc/X3GJ-FSXK] (last visited Jan. 15, 2016); Summary of the 2013 HOA Law Reforms Enacted by the Texas Legislature, Schumann, Johnson, McGarr, Kaminski & Shirley LLP (2013), http://www.texashoalaw.com/wp-content/uploads/2013/06/Brief-Summary-of-the-2013-HOA-Law-Reforms-Enacted-by-the-Texas-Legislature.pdf [https://perma.cc/9BB3-3Y3G] (last visited Jan. 24, 2016).

60 Tex. Prop. Code § 202.007(a) (2016).

61 *Id.* § 202.007(d).

62 *Id.* §§ 202.007(d)(6)-(7); *see also* Calvin Trey Scott, *Rain Catching: An Analysis of Rainwater Harvesting Law in Texas*, 44 Tex. Envtl. L.J. 375, 386 (2014).

63 Tex. Prop. Code § 202.007(d)(8) (2016).

64 *Id.* § 202.007(d-1).

65 *See, e.g.*, Hoye v. Shepherd's Glen Land Co., 753 S.W.2d 226 (Tex. App.—Dallas 1988, writ denied) (enforcing POA's limitation on roof material), Gunnels v. North Woodland Hills Cmty. Ass'n, 563 S.W.2d 334 (Tex. Civ. App.—Houston [1st Dist.] 1978, no writ) (enforcing POA's limitation on installation of television antennae); Village of Pheasant Run Homeowner's Ass'n v. Kastor, 47 S.W.3d 747 (Tex. Civ. App.—Houston [14th Dist.]

at this time, the Texas courts have not spoken specifically to this issue of reasonable landscape restrictions. It is quite possible that, in a situation like that of Mr. Bender's,[66] the courts would have found in favor of the homeowner challenging the POA's landscaping restrictions due to their violation of the Texas Property Code;[67] however, the ambiguity in the code itself in addition to the code's favorability to POAs[68] leaves the certainty of such a verdict open to dispute.

Additionally, if the homeowner moves forward with installation without approval of the POA, the homeowner risks serious financial consequences. POAs can initiate litigation or administrative proceedings against anyone who violates the neighborhood's deed restrictions, including those pertaining to construction and aesthetics.[69] Homeowners may be required to pay as much as $200 per day for violating the restrictions.[70]

However, the Property Code does not spell doom and gloom for conservation at the ultra-local level. Though the Property Code allows the POA to place restrictions on installation of water conservation measures, it ensures that the homeowner cannot be restricted outright from installing such systems.[71] The homeowner may bring challenges against the POA in a court of law if the homeowner believes the POA has unreasonably restricted his ability to install such systems.[72]

In addition, the Property Code and other Texas statutes[73] discourage the POA from impinging upon the homeowner's ability to install water conservation measures on his property: the Property Code allows the POA to restrict the type of turf used in the neighborhood if those restrictions encourage the installation of water-conserving turf,[74] and the Local Government Code encourages cities to create ordinances that encourage rainwater harvesting and xeriscaping.[75] City ordinances that provide the homeowner with a preferred plant list or a procedure for installing efficient irrigation systems are a great resource for the homeowner to use when approaching a POA about installing water conservation systems on his property. Such ordinances, alongside the Local Government Code, act as an endorsement for the homeowner's decision to install water-conserving measures and have great evidentiary value if the homeowner decides that it is necessary to take legal action against the POA.

2001, pet. denied) (upholding POA's prohibition on use of bright colors in home design); City of Pasadena v. Kennedy, 125 S.W.3d 687, 696-97 (Tex. App—Houston [1st Dist.] 2003, pet. denied) (upholding POA's restriction on placement of fence). *See also* TEX. PROP. CODE § 202.004(a) (2016).

66 Schecter, *supra* note 1.

67 TEX. PROP. CODE ANN. § 202.007(a) (2013).

68 *See generally* TEX. PROP. CODE ANN. § 202.007 (2013).

69 TEX. PROP. CODE § 202.004(b) (2016).

70 *Id.* § 202.004(c).

71 *Id.* § 202.007(a).

72 As of the time of writing, no property owner has brought such a challenge.

73 *See* TEX. PROP. CODE § 202.007 (2016), TEX. LOC. GOV'T CODE §§ 580.002, .004 (2016).

74 TEX. PROP. CODE § 202.007(c) (2016).

75 TEX. LOC. GOV'T CODE §§ 580.002, .004 (2016).

IV. Encouraging Ultra-Local Conservation

To bolster the water conservation statutes enacted at the state level, cities can encourage property owners to conserve at the ultra-local level in a variety of ways. Typical methods include enactment of ordinances in a city's municipal codes and institution of rebate and trade-in programs that allow individual homeowners to replace aging water appliances with up-to-date, water efficient models. Residential developers can also proactively encourage ultra-local conservation by making energy and water efficiency a major focus in constructing a subdivision's properties.

A. Ordinances that Encourage Water Conservation in Texas Cities

A municipal ordinance is an authoritative decree enacted by the municipal government.[76] Municipal governments can pass ordinances on matters that the state government allows to be regulated at the local level.[77] Municipal ordinances have the same effect within the municipality as state statutes.[78] Each municipality maintains a code of ordinances (municipal codes) that it regularly updates upon addition, amendment, expansion, or removal of the ordinances within.[79]

Currently, the ordinances in Texas municipalities that address water conservation vary greatly. Some cities, such as Dallas and Houston, have drought and water contingency plans in place,[80] but do not encourage their residents to be proactive about water conservation beyond the city's directives in their codes of ordinances[81] As discussed below, however, other municipal codes provide thorough guidance on conserving water at the ultra-local level.[82]

1. San Antonio

The City of San Antonio, in the Landscaping division of its Unified Development Code, encourages "proper selection, installation, and maintenance of plant materials

---

76 *Ordinance*, Black's Law Dictionary (10th ed. 2014).

77 *Id.*

78 *Id.*

79 *See, e.g.*, *Code of Ordinances*, City of Houston, Tex.

80 *See* Drought Contingency Plan, City of Dallas (Feb. 26, 2014), http://dallascityhall.com/departments/waterutilities/DCH%20Documents/pdf/drought-contingency-plan.pdf [https://perma.cc/KF8C-A5B5]; Drought Contingency Plan for the City of Houston, City of Houston (Sept. 2014), https://perma.cc/RM7Z-TSFL [https://perma.cc/RM7Z-TSFL].

81 *See Code of Ordinances*, Dallas Cty., Tex.; *Code of Ordinances*, City of Houston, Tex. The City of Dallas itself does not have a separate code of ordinances; *Code of Ordinances*, Dallas Cty., Tex, ordinance no. 28622, http://savedallaswater.com/pdf/waterconservationordinance.pdf [https://perma.cc/X3HQ-SMVC] (last visited May 3, 2016); *City of Dallas Long Range Water Supply Plan*, Save Dallas Water, http://savedallaswater.com/lrwsp/ [https://perma.cc/4X4Y-8GH5] (last visited Jan. 24, 2016); *Water Conservation Plan*, City of Houston (Apr. 1, 2014), http://edocs.publicworks.houstontx.gov/documents/divisions/utilities/coh_water_conservation_plan_2015.pdf [https://perma.cc/2SEU-HYHC].

82 *See, e.g.*, San Antonio, Tex., Unified Dev. Code, art. V, div. 3 (2012); Austin, Tex., Code of Ordinances, tit. VI, ch. 6-4.

that result in the conservation of natural resources, including water. . .innovative and cost-conscious approaches to the design, installation, and maintenance of landscaping while encouraging xeriscape planting techniques, water and energy conservation. . .[and] water conservation through efficient landscape and irrigation design."[83] The municipal code itself has an entire section dedicated to water conservation and reuse that limits sprinkler use and power washer use, watering during times of drought, placement of irrigation systems, and pool construction and filling.[84]

The municipal code also encourages use of low-angle sprinkler heads and drip irrigation.[85] All plumbing fixtures installed after January 1, 2010 must meet or exceed EPA's WaterSense standards,[86] and rain sensors are required on all irrigation systems.[87]

The city also has a recycled water service program,[88] which allows San Antonio water customers to contract with the city to receive recycled water for use in irrigation,[89] and provides a recommended plant list for xeriscaping in the code's appendix.[90]

2. *Austin*

The City of Austin has an entire environmental criteria manual and a land development code.[91] The municipal code itself has a section regarding water conservation.[92] Though this section mostly focuses on commercial and city-owned properties, it does provide limitations on power washing,[93] and ornamental fountain operation (all ornamental fountains must use recirculated water) that apply to residential property owners as well.[94] The Austin municipal code also outright prohibits the waste of water,[95] requires repairs and maintenance of irrigation systems,[96] and places limitations on their runoff.[97]

The municipal code also contains several stages of drought watering,[98] with the most extreme stages prohibiting watering of all kinds.[99] However, the municipal code allows

---

83 SAN ANTONIO, TEX., UNIFIED DEV. CODE, art. V, div. 3 (2012). "Efficient" in this context presumably means "water-efficient," referencing landscaping that decreases an individual homeowner's water usage.
84 SAN ANTONIO, TEX., CODE OF ORDINANCES, ch. 34, art. IV, §§ 34-272, 34-319–34-332.
85 SAN ANTONIO, TEX., UNIFIED DEV. CODE, art. V, div. 3, § 35-511 (2012).
86 SAN ANTONIO, TEX., CODE OF ORDINANCES, ch. 34, art. IV, § 34-273 (2014).
87 *Id.* § 34-274 (2014).
88 SAN ANTONIO, TEX., CODE OF ORDINANCES, ch. 34, art. VIII.
89 *Id.* ch. 34, art. VIII, § 34-1142 (1998).
90 *Id.* app. E: San Antonio Recommended Plant List – All Suited to Xeriscape Planting Methods (2009).
91 *See* AUSTIN, TEX., Austin Publications, https://www.municode.com/library/tx/austin [https://perma.cc/CT5T-3EJV] (last visited Jan. 24, 2016).
92 AUSTIN, TEX., CODE OF ORDINANCES, tit. VI, ch. 6-4.
93 *Id.* § 6-4-11.
94 *Id.*
95 *Id.* § 6-4-12.
96 *Id.*
97 *Id.*
98 *Id.* §§ 6-4-15–19.
99 *Id.* § 6-4-19.

for an exception from these water restrictions for those who make use of drip irrigation.[100]

The municipal code also allows the water utility to make reclaimed water available to properties,[101] though the code is not entirely clear on how this process works. The user applying for reclaimed water must show their water use plan to the water utility in its application for use and access.[102]

The Environmental Criteria Manual provides thorough guidance to the homeowner and business owner alike on how to institute an effective home water conservation system. It lists things such as filtration requirements for ponds,[103] how to conduct drainage when planning landscaping,[104] what trees the homeowner can plant,[105] and if any actions require mitigation measures.[106] The manual has an appendix (R-7) that helps developers make the appropriate rainwater harvesting calculations for necessary development permits.[107]

The Austin Code of Ordinances, along with its Environmental Criteria Manual, is so comprehensive that it is impossible to explain all its minutiae. However, it is clear the city heavily encourages xeriscaping and conservation due to its in-depth focus on and explanation of several different water conservation methods.

3. El Paso

El Paso, one of the driest cities in Texas,[108] also boasts a comprehensive focus on water conservation in its municipal code of ordinances: the code has an entire chapter dedicated to water conservation.[109] This chapter permanently limits the days and times residents can water, specifying that residential properties may only engage in watering three days a week.[110] The code prohibits wasting water in several forms, including leaving leaks unrepaired[111] and washing sidewalks with a hose (except to remove hazardous materials or conditions that endanger the public).[112] Notably, El Paso expressly prohibits the use of turf grass on more than fifty percent of the total landscaped area of a residential yard.[113]

The code also puts special restrictions on large users, defined as those who use "an average of ten thousand gallons per day or more"[114] from the public supply system, and

---

100 *Id.* § 6-4-14.
101 *Id.* title 25, ch. 25-9, art. IV, § 25-9-383.
102 *Id.* § 25-9-384.
103 Austin, Tex., Envtl Criteria Manual, sec. 1, ch. 1.6.0, § 1.6.6 (2015).
104 *Id.* sec. 2, ch. 2.4.0, § 2.4.9.2.
105 *Id.* sec. 2, ch. 2.4.0.
106 *Id.* sec. 3, ch. 3.5.0, § 3.5.4.
107 *Id.* app. R-7 – Rainwater Harvesting System Calculations for Development Permits.
108 *See Monthly Precipitation Totals: El Paso*, Nat'l Weather Serv., http://www.srh.noaa.gov/epz/?n=elpaso_monthly_precip [https://perma.cc/P2XY-2P9U] (last visited Jan. 24, 2016). El Paso receives an average of 8.71 inches of rain per year.
109 El Paso, Tex., Code of Ordinances, title 15, ch. 15.13.
110 *Id.* § 15.13.020 (2001).
111 *Id.* § 15.13.030 (2010).
112 *Id.*
113 *Id.* § 15.13.130 (2002).
114 *Id.* § 15.13.050 (2008).

very large users, defined as those who use "an average of one hundred thousand gallons per day or more."[115] These users have been required since 1991 to submit thorough water conservation plans to the city water conservation manager that detail technologies used to conserve water and improve water efficiency since 1991.[116] In addition, all large and very large users who wish to subscribe to new water service or increase their existing service must submit a water justification plan to the water conservation manager.[117] The water conservation plan must include strategies for reducing overall use and the potential for recycling and reuse of water.[118] All water conservation and justification plans must be approved by the water conservation manager and the city's public service board before the large and very large users can continue or increase their use.[119]

Additionally, the El Paso municipal code has a comprehensive section on irrigation and the installation of irrigation systems.[120] All irrigation systems require a permit from the city to install (in plumbing codes elsewhere).[121] The code also explicitly requires that irrigation systems must be designed and maintained in a way that promotes water conservation.[122] The code covers everything from the spacing of the irrigation devices to the required water pressure of the system in the highly comprehensive section 18.47.090 of the code, which governs irrigation standards.[123] Lastly, the code also allows for reclaimed water use as long as: purple pipes are installed; the water is not used for edible crops that will not undergo pasteurization; the property contains a sign notifying the public that the water is reclaimed and not to drink it; and the city water utility approves use of the reclaimed water.[124]

B. Rebate, Trade-In, and Education Programs

Cities and municipalities can also help encourage ultra-local water conservation by instituting incentives and education programs. Though water-efficient appliances are a key tool in helping households conserve water, as discussed above, many older homes lack these appliances and require expensive upgrades.[125] By instituting rebate and trade-in programs, cities can help encourage homeowners to conserve water by helping the homeowners save money and recycle their old appliances.

---

115 *Id.*
116 *Id.*
117 *Id.*
118 *Id.*
119 *Id.*
120 *Id.* title 18, ch. 18.47.
121 *Id.* §§ 18.47.040, 18.050 (2008).
122 *Id.* § 18.47.070 (2008).
123 *Id.* § 18.47.090 (2012).
124 *Id.* § 18.47.120 (2008).
125 *Compare*, *e.g.*, *Side-by-Side Refrigerators – Energy Star Qualified*, LOWE'S, http://goo.gl/4pqNEb [https://perma.cc/GYN7-DET7], *with Side-by-Side Refrigerators – Not Energy Star Qualified*, LOWE'S, http://goo.gl/4pqNEb [https://perma.cc/R7WW-RQS6]. Energy Star Qualified appliances sell at a starting point of ~$1,100, while non-Energy Star appliances sell at a starting point of ~$800.

For example, the Austin Water Utility has several rebates that customers can take advantage of in order to help conserve water.[126] For example, Austin Water customers may receive a rebate of up to $400 for making improvements to existing irrigation systems that increase water efficiency[127] and a rebate of up to $1.00/gallon for installing a rainwater harvesting system.[128] Austin Water also has water-efficient showerheads and faucet aerators, devices that mix air with flowing water to reduce the water used without reducing water pressure, available for its customers free of charge.[129] Additionally, the PowerSaver program run by Austin Energy, the public electric utility for the City of Austin,[130] provides energy saving services ranging from refrigerator and freezer recycling to rebates for the complete overhaul and upgrade of a home's air conditioning system.[131] Upgrading to an energy-efficient air conditioner or refrigerator also helps conserve water since most power plants use water cooling systems to provide energy:[132] the less energy a house consumes, the more water is saved.[133]

Other Southwest cities outside of Texas have instituted more aggressive rebate programs, including educational components and focusing on rebates of many different types. In particular, the cities of Las Vegas, Santa Fe, and Tucson have reduced their per person per year water use through campaigns to facilitate conservation at the ultra-local level.

1. *Las Vegas, Nevada*

Las Vegas, Nevada, like many Texas cities, is located in an arid region of the country with dwindling water access.[134] In 2003, the Las Vegas Valley Water District mounted a

126 *See Water Conservation – Rebates*, Austin Water, http://www.austintexas.gov/department/water-conservation-rebates [https://perma.cc/KU9F-N34T] (last visited Jan. 24, 2016).

127 *Irrigation System Evaluations and Rebates*, Austin Water, http://www.austintexas.gov/department/irrigation-system-evaluations-and-rebates#overlay-context=department/irrigation-system-evaluations-and-rebates&overlay=node/5349/edit%3Fdestination%3Dadmin/workbench [https://perma.cc/L5YC-39HX] (last visited Jan. 24, 2016).

128 *Rainwater Harvesting Rebates*, Austin Water, http://www.austintexas.gov/department/rainwater-harvesting-rebates [https://perma.cc/LZ3D-TMED] (last visited Jan. 24, 2016).

129 *Save Water in Bathrooms*, Austin Water, http://www.austintexas.gov/department/save-water-in-bathrooms [https://perma.cc/UDW7-TWSB] (last visited Jan. 24, 2016).

130 *About Austin Energy*, Austin Energy, http://goo.gl/LGHwde [https://perma.cc/GCA6-A979] (last visited Jan. 24, 2016).

131 *Energy Savings for Your Home*, Austin Energy PowerSaver Program, http://goo.gl/ehhWxL [https://perma.cc/4BH7-9R52] (last visited Jan. 24, 2016).

132 Nat'l Res. Def. Council, Power Plant Cooling and its Associated Impacts: The Need to Modernize U.S. Power Plants and Protect Our Water Resources and Ecosystems 3 (2014), http://www.nrdc.org/water/power-plant-cooling.asp [https://perma.cc/Y9JG-MYHY]. (last visited Jan. 24, 2016).

133 *Id.* at 8.

134 *Compare* EPA, *Texas Water Fact Sheet*, Envtl. Prot. Agency (June 2010), http://www3.epa.gov/watersense/docs/texas_state_fact_sheet.pdf [https://perma.cc/KA8F-B3WY], *with* EPA, *Nevada Water Fact Sheet*, Envtl. Prot. Agency (March 2010), http://www3.epa.gov/watersense/docs/nevada_state_fact_sheet.pdf [https://perma.cc/C43Z-F2V2].

major conservation campaign to help conserve water for the bustling city.[135] Since doing so, the city has managed to reduce its total per person water system demand by almost 35 percent.[136] This major accomplishment stems from the multifaceted nature of the campaign, which targets multiple water sources, including usage at the residential level.[137]

In particular, Las Vegas has aggressive limitations on the use of turf. The city has banned installation of new turf in front yards[138] and limits the total amount of turf in a residential yard (back or side yard) to 50 percent of the yard or 100 square feet, whichever value is greater.[139] The Southern Nevada Water Authority offers an additional incentive to limit the use of turf on residential property through its Water Smart Landscape Rebate program.[140] SNWA will rebate customers $2.00 per square foot of grass for the first 5,000 square feet that the customer removes, and $1.00 per square foot for sod removal in excess of 5,000 square feet.[141]

In addition to its turf limitation measures and incentives, Las Vegas placed limits on sidewalk and vehicle washing to encourage conservation at the ultra-local level. The city prohibits building and sidewalk washing unless the water is appropriately discharged into the city's sewer system to allow recycling of the water.[142] The city also requires use of a positive shut-off nozzle to water vehicles at one's residence and limits personal car washing to once per week, encouraging residents to discharge water used in washing to the city sewer system.[143]

Las Vegas's water conservation plan also includes a unique summer watering schedule: the city allows homeowners to water their lawns any day of the week during the summer months between the hours of 7 p.m. and 11 a.m. rather than restricting residents to watering on certain days.[144] The city likely does this to give its residents a feeling of choice over when they water their lawns, rather than feeling subject to city restrictions. These Las Vegas programs are excellent examples of how cities can encourage and make strides in encouraging water conservation at the ultra-local level.

---

135 *Conservation Measures*, LAS VEGAS VALLEY WATER DIST., https://www.lvvwd.com/conservation/drought_measures.html [https://perma.cc/UZ3T-4CQR] (last visited Jan. 24, 2016).

136 *Id.* The system demand has been reduced from 314 gallons per person per day to 205 gallons per person per day.

137 *Id.*

138 *Turf Limitations*, LAS VEGAS VALLEY WATER DIST., http://www.lvvwd.com/conservation/drought_measures_turf.html [https://perma.cc/K5KS-8VWR] (last visited Jan. 24, 2016).

139 *Id.*

140 *Water Smart Landscapes Rebate*, S. NEVADA WATER AUTH., http://www.snwa.com/rebates/wsl.html [https://perma.cc/56Y6-J552] (last visited Jan. 24, 2016).

141 *Id.*

142 *Surface, Equipment, and Building Washing*, LAS VEGAS VALLEY WATER DIST., http://www.lvvwd.com/conservation/drought_measures_surface_washing.html [https://perma.cc/4GRM-2NR3] (last visited Jan, 24, 2016).

143 *Vehicle Washing*, LAS VEGAS VALLEY WATER DIST., http://www.lvvwd.com/conservation/drought_measures_vehicle.html [https://perma.cc/L6JJ-GKLW] (last visited Jan. 24, 2016).

144 *Mandatory Watering Schedule*, LAS VEGAS VALLEY WATER DIST., http://www.lvvwd.com/conservation/drought_watering_schedule.html [https://perma.cc/GXP5-WG49] (last visited Jan. 24, 2016).

2. Santa Fe, New Mexico

Santa Fe, New Mexico, has had a water conservation plan in place since 1997, making it one of the earliest cities in the western United States to implement a comprehensive water conservation plan.[145] In 2014, the city boasted an impressive 95 gallons per capita per day,[146] placing the city's water use far below many other western cities.[147] The city accomplished this feat through the use of several programs, including the implementation of comprehensive land design standards, educational programs, and rebates and incentives for its residents to save water.[148]

To target a reduction of water use during the hot summer months,[149] Santa Fe has created a summer irrigation efficiency rebate program.[150] The city provides $50 rebates to residential water users who have their irrigation systems evaluated for efficiency by an EPA WaterSense-qualified efficient landscaper[151] and provide rebates of up to $750 for irrigation equipment upgrades.[152] In addition to its summer upgrade program, Santa Fe also offers year-round rebates for the installation of high water-efficiency appliances and rainwater harvesting equipment.[153]

Beyond offering rebates, Santa Fe has worked to create a highly comprehensive set of landscape irrigation design standards that apply to all properties in the city, including single-family homes.[154] The standards provide full information on a variety of topics, ranging from irrigation system maintenance and audits[155] to the design criteria for every aspect of a water-efficient landscape, including information on topics such as sprinkler placement,[156] system hydraulics and dynamic pressure,[157] and the city's design requirements and regulations.[158] The standards also include a chapter on drip irrigation de-

---

145 *Water Conservation*, City of Santa Fe, http://www.santafenm.gov/water_conservation [https://perma.cc/N5Q2-YP5C] (last visited Jan. 24, 2016).

146 *Id.*

147 *See, e.g.*, Western Cities GPCD Comparison 2013, Save Water Santa Fe (2013).

148 City of Santa Fe, *supra* note 143.

149 *See Climate: Santa Fe, New Mexico*, U.S. Climate Data, http://www.usclimatedata.com/climate/santa-fe/new-mexico/united-states/usnm0292 [https://perma.cc/9CLX-3MB9] (last visited Jan. 24, 2016).

150 *2015 Summer Outdoor Irrigation Rebate Program*, Save Water Santa Fe, http://savewatersantafe.com/rebates/summer-outdoor-irrigation-rebate-programs/ [https://perma.cc/76LJ-NCCZ] (last visited Jan. 24, 2016).

151 *Id.*

152 *Id.* The monetary value of the irrigation rebate is based on the equipment used and the number of pieces of new irrigation equipment installed. *See Irrigation Equipment Upgrade Rebate*, Save Water Santa Fe, http://savewatersantafe.com/qwel/irrigation-equipment-upgrade-rebate/ (last visited Jan. 24, 2016).

153 *Water Conservation Rebates and Incentives*, Save Water Santa Fe, http://savewatersantafe.com/rebates/ [https://perma.cc/FA4S-FN8X] (last visited Feb. 28, 2016).

154 City of Santa Fe Water Conservation Office, Landscape Irrigation Design Standards I-2 (2010) [hereinafter Landscape Irrigation Design Standards].

155 *Id.* at II-3–II-4.

156 *Id.* at III-10, IV-6.

157 *Id.* at III-13.

158 *Id.* at III-14.

sign,[159] providing comprehensive information on the principles of evapotranspiration and plant-water relationships[160] and proper placement of drip emitters to ensure the maximum possible water efficiency.[161] To ensure that the standards are accessible to laymen and irrigation experts alike, the city has included several appendices in the standards that include a glossary of terms[162] and different important data charts, detailing subjects such as pipe dimensions[163] and state evapotranspiration and rainfall data.[164]

By managing to reduce its water use to below 100 gallons per person per day through use of its conservation programs, the City of Santa Fe has set the standard for water use that the rest of the West (and Southwest) must measure itself against.[165] Though the city's programs make little to no mention of turf usage or replacement,[166] Santa Fe still distinguishes itself as a water conservation leader with plenty of smart ideas to imitate.

3. *Tucson, Arizona*

Tucson, Arizona, is one of the Southwest cities that faces the most danger from dwindling water supplies, due to a seasonal population that strains the city's economy.[167] In response, the city has taken action to conserve water and is a leader in sustainable desert living.[168] Since entering office, Tucson's Mayor Jonathan Rothschild has made environmental resilience a major part of his two-year plan,[169] and his commitment is reflected in the city's dedication to providing numerous options to facilitate water conservation at the ultra-local level.

The city has several rebate programs available to its residential water customers.[170] These programs include rebates for installing rainwater harvesting systems and high-efficiency toilets,[171] fairly commonplace rebates. However, Tucson goes beyond the stan-

---

159 *Id.* at V-1.
160 *Id.* at V-3–V-5.
161 *Id.* at V-10–V-18.
162 *Id.* at D-1–D-18.
163 *See*, *e.g.*, *id.* at E-2.
164 *See*, *e.g.*, *id.* at A-1.
165 Water Conservation Staff, *Santa Fe Drops Water Use Below 100 Gallons Per Person Per Day, Sets Standard for the West*, SAVE WATER SANTA FE (Jun. 4, 2015), http://savewatersantafe.com/2015/06/santa-fe-2014-gpcd-sets-standard-for-the-west/ [https://perma.cc/RHY2-DKR9] (last visited Jan. 24, 2016).
166 This may be due to the fact that the desert climate and topography of the city are not well-suited to turf, so there is little need to replace it in the first place.
167 Eric Holthaus, *The Thirsty West: Can Tucson Survive Climate Change?*, SLATE (Mar. 2014), http://www.slate.com/articles/technology/future_tense/2014/03/tucson_tries_to_reinvent_itself_in_the_face_of_a_drought.html [https://perma.cc/T3RC-VCFY] (last visited Jan. 29, 2016).
168 *Id.*
169 *Mayor's Two Year Plan*, CITY OF TUCSON OFFICE OF THE MAYOR, http://www.mayorrothschild.com/mayors-plans/two-year-plan/ [https://perma.cc/H9J2-TZKK] (last visited Jan. 29, 2016).
170 *Rebate and Incentive Programs*, CITY OF TUCSON, http://www.tucsonaz.gov/water/rebate [https://perma.cc/8EA7-XVN8] (last visited Jan. 29, 2016).
171 *Id.*

dard offerings with its greywater[172] rebate program that offers a reimbursement of up to $1,000 for installation of a permanent greywater irrigation system,[173] and provides assistance to low-income homeowners to replace their toilets with high-efficiency models, free of charge.[174] The city also uses a block pricing system that includes conservation surcharges, which encourages residents to use less water in order to reduce their monthly bills.[175]

To help encourage conservation in single-family homes, the Tucson Water Department has partnered with Pima County and the University of Arizona to form the Pima County SmartScape program.[176] This program provides free classes throughout the year that educate homeowners on the principles of xeriscaping and practical landscape water conservation.[177] Tucson also supplies its residents with plenty of educational materials online, including a recommended plant list,[178] a list of tips for scheduling and engaging in lawn irrigation,[179] and a guide to xeriscaping one's lawn.[180]

Through aggressive conservation efforts, Tucson has managed to provide its residents with a consistent water supply in a metropolitan area that receives less than 12 inches of rainfall per year.[181]

V. Analysis

The examples and case studies presented above have several important lessons that Texas can apply statewide to facilitate conservation at the ultra-local level. The examples make clear that conservation efforts must occur on several levels – the state level, the city level, and the individual level – to combat the deed restrictions of a POA and the discretion offered to POAs under Texas law.

---

172 *About Greywater Reuse*, *supra* note 20.

173 *Single Family Residential Gray Water Rebate Program*, City of Tucson, http://www.tucsonaz.gov/water/gray-water [https://perma.cc/J2QL-KJQK] (last visited Jan. 29, 2016).

174 *Toilet Replacement Program for Low Income Homeowners*, City of Tucson, http://www.tucsonaz.gov/water/het-low-income [https://perma.cc/4Z3U-NF35] (last visited Jan. 29, 2016).

175 *Current Water Rate Schedules*, City of Tucson, http://www.tucsonaz.gov/water/rates [https://perma.cc/32EC-QX7V] (last visited Jan. 29, 2016); *see also* Holthaus, *supra* note 165. It is worth noting that the City of Austin also offers a block pricing schedule. *See* Service Rates, Austin Water, https://www.austintexas.gov/department/austin-water-utility-service-rates [https://perma.cc/VAC3-E5ML] (last visited May 3, 2016).

176 *Homeowner Classes*, The Univ. of Ariz., https://www.ag.arizona.edu/pima/smartscape/smartscape-residential/ [https://perma.cc/V482-6SLR] (last visited Jan. 30, 2016).

177 *Id.*

178 *Plant Categories*, Ariz. Mun. Water Users Ass'n, http://www.amwua.org/plants_index.html [https://perma.cc/LB9W-2Q92] (last visited Jan., 30, 2016).

179 *Irrigation Schedule and Tips*, City of Tucson, http://www.tucsonaz.gov/water/irrigation-schedule-tips [https://perma.cc/TWD2-K6TQ] (last visited Jan. 30, 2016).

180 *Xeriscape: Landscaping with Style in the Arizona Desert*, Ariz. Mun. Water Users Ass'n, http://www.amwua.org/landscape/landscape_principles.html [https://perma.cc/5G2K-LS6S] (last visited Jan. 30, 2016).

181 *Water Resources*, City of Tucson, http://www.tucsonaz.gov/water/water-resources [https://perma.cc/KT9H-YJ9E] (last visited Jan. 30, 2016).

A. The State Level

The most direct step that Texas can take to limit the power of the POA is to amend the Texas Property Code, most specifically section 202.007 and other provisions of Chapter 202. Though section 202.007 prohibits POAs from outright denying homeowners the opportunity to install water conservation measures, the section still grants too much power to POAs to restrict their installation.

First, the legislature should remove all subsections of the statute that refer to "establishing. . .limitations for aesthetic purposes."[182] Aesthetics are too vague a basis for denial of the installation of a rain barrel or an irrigation system, considering that no two POAs will have a consistent regime of aesthetics to which they adhere.[183] Though many POAs may argue that the lack of their ability to enforce an aesthetic scheme on the subdivision undermines their control over the subdivision, denying facilitation of water conservation because it would "ruin the look of the neighborhood" is a senseless argument to make.

The legislature should also insert language into the statute referring to reasonableness. For example, section 202.007(d)(5), which reads, "This section does not. . .restrict a property owners' association from regulating yard and landscape maintenance if the restrictions or requirements do not restrict or prohibit turf. . .that promotes water conservation"[184] should be amended to read ". . .restrict a property owners' association from *reasonably* regulating yard and landscape maintenance. . ." Similar language should be placed throughout various subsections of the statute that refer to the regulatory ability of a POA.

Inserting such language does raise the question of the definition for "reasonable" and "unreasonable." These terms, which arguably breed litigation, are impossible to define concretely. The official legal definition of the word is "fair, proper, or moderate under the circumstances; sensible."[185] Additionally, there is very little case law that provides guidance on the specific term "reasonable." One could propose an amendment to section 202.001 of the Texas Property Code, which sets out the important terms necessary for the construction of restrictive covenants,[186] but the reasonableness of an action differs from case to case. Instead of creating a specific definition for "reasonable" within the Property Code itself, inserting the term into section 202.007 would allow greater protection for individual homeowners by creating greater opportunity to threaten litigation over the as-applied "reasonableness" of a POA's actions.[187] However, it is worth noting that inserting the term would decrease the number of settlements because lawyers could

---

182 TEX. PROP. CODE § 202.007(d)(3) (2016). *See also id.* § 202.007(d)(6)(B) (referring to color of rain barrels).

183 *See Aesthetics*, OXFORD ENGLISH DICTIONARY (3d ed. 2011). The OED defines "aesthetics" as the highly vague "(attractive) appearance or sound of something."

184 TEX. PROP. CODE § 202.007(d)(5).

185 *Reasonable*, BLACK'S LAW DICTIONARY (10th ed. 2014).

186 *See* TEX. PROP. CODE § 202.001.

187 *See, e.g.*, Mauricio v. State, 293 S.W.3d 756 (Tex. App.—San Antonio 2002, *no. pet.*) (Discussing the necessity of defining "reasonable doubt."); Morgan v. J.C. Penney Co., Inc., 502 S.W.2d 907 (Tex. Civ. App.—Amarillo 1973, *no writ*) (Discussing the definition of "reasonable ground for detention.").

not rely on a consistent definition of "reasonableness" from the courts, meaning that costs of litigation would increase for individual homeowners.

Lastly, the legislature should amend the Property Code to add a new section that protects homeowners, similar to the protection of POAs present in section 202.004. This section relates to the enforcement of restrictive covenants[188] and places most of the enforcement power in the hands of the POA, referring specifically to the power of a POA to bring actions against individual homeowners who violate POA-instituted deed restrictions.[189] To counterbalance this section, the legislature should add a new section to chapter 202, section 202.0041, that reads as follows:

> (a) An individual property owner who owns property within the subdivision may initiate litigation or an administrative proceeding to challenge enforcement of a restrictive covenant on her individual property if they believe exercise of such authority is arbitrary, capricious, or discriminatory.
>
> (b) An individual property owner who owns property within the subdivision may intervene in litigation or an administrative proceeding affecting the enforcement of a restrictive covenant on her property and property owned by another individual property owner within the subdivision.

This new section is modeled after section 202.004 and gives the property owner the power to challenge restrictive covenants akin to that of the POA's ability to enforce them if the property owner believes that the POA has overstepped its authority in enforcing certain covenants. This new section would also give individual property owners the ability to support their neighbors in challenges to the POA's authority. Creation of these new provisions would discourage the POA from overstepping its authority to enforce deed restrictions and follow the legislative trend of increasing protection for the individual homeowners within subdivisions.[190]

However, as noted above, inserting the term "reasonableness" could greatly increase litigation costs for individual homeowners. The greatest way for homeowners to counteract this issue is to carefully review the subdivision's deed restrictions before buying and only buy properties in subdivisions that align with their environmental preferences.[191] When sales in energy and water-efficient subdivisions rise, POAs will understand the desires of the public and amend their deed restrictions to allow for greater energy efficiency and water conservation.

B. The Municipal Level

Undoubtedly, municipalities have the potential to make the greatest impact on curbing the ability of the POA to hinder ultra-local conservation efforts. While the

---

188 Tex. Prop. Code Ann. § 202.004.

189 *Id.*

190 *See id. See also supra* note 57.

191 *See, e.g.*, Meg Wilcox, *Homebuilder KB Homes Unveils Water and Energy Efficient Housing*, Ceres (Apr. 24, 2014), http://www.ceres.org/connect-the-drops/join-the-campaign/corporate-water-action/tamping-down-on-water-use-in-drought-stricken-california-1 [https://perma.cc/22EK-MJDD].

Texas legislature is only in session every two years,[192] city councils meet far more often, sometimes meeting multiple times a week.[193] Therefore, the city council has many more opportunities to facilitate conservation at the ultra-local level, largely through amending the city's code of ordinances and drawing on the success of other conservation programs throughout the Southwest.

1. *Amending Municipal Codes of Ordinances*

Though many major Texas cities have instituted thorough guidance in their municipal codes about watering,[194] landscaping,[195] and conservation efforts,[196] other major Texas cities fall short on providing these helpful tools.[197] Cities like Dallas and Houston, which lack this sort of guidance,[198] need to lead the way in amending their municipal codes to include provisions over water conservation.

These major cities have the resources and meeting times available to at least include provisions on efficient irrigation[199] and a preferred plant list[200] akin to those found in other major cities like San Antonio and Austin. Though this may seem redundant, if cities have this information otherwise available to their residents, by simply including irrigation guidelines and recommended plants in their municipal codes, cities give the force of their authority to this information even if only including it as a recommendation to its residents. In having the force of city authority, something such as a recommended plant list carries greater weight and does a better job encouraging conservation on the part of the individual homeowner.

Beyond just including recommendations, cities should institute stricter limitations in their municipal codes that help make ultra-local conservation mandatory. For example, though not all Texas cities are located within the heart of the desert, the prohibition on covering more than 50% of a residential yard with turf grass in the El Paso municipal code[201] and the ban on installation of new turf in Las Vegas[202] are fine examples of how to mandate ultra-local conservation. Not only do these provisions require homeowners to take steps to prevent water waste, they also curb the ability of the POA to institute lawn maintenance requirements that encourage waste. In particular, the turf limitation ordinance cuts the ability of the POA to mandate the traditional green lawn.

---

192 *See Texas legislative sessions and years*, LEGISLATIVE REFERENCE LIBRARY OF TEX., http://www.lrl.state.tx.us/sessions/sessionYears.cfm [https://perma.cc/2UBZ-NGFY] (last visited Jan. 30, 2016).

193 *See, e.g.*, *2015 Austin City Council Meeting Schedule*, THE CITY OF AUSTIN, https://austintexas.gov/department/city-council/2015_council_meeting_schedule.htm [https://perma.cc/DZ4U-E763] (last visited Jan. 30, 2016).

194 *See, e.g.*, EL PASO, TEX., CODE OF ORDINANCES, title 18, ch. 18.47.

195 *See, e.g.*, SAN ANTONIO, TEX., UNIFIED DEV. CODE, art. V, div. 3.

196 *See, e.g.*, AUSTIN, TEX., CODE OF ORDINANCES, title VI, ch. 6-4.

197 *See* DALLAS CTY., TEX, CODE OF ORDINANCES; HOUSTON, TEX., CODE OF ORDINANCES.

198 *Id.*

199 *See, e.g.*, SAN ANTONIO, TEX., CODE OF ORDINANCES, ch. 34, art. IV, §§ 34-272, 34-319–34-332.

200 *See, e.g.*, *Id.* App. E: San Antonio Recommended Plant List – All Suited to Xeriscape Planting Methods (2009).

201 EL PASO, TEX., CODE OF ORDINANCES, tit. 15, ch. 15.13, § 15.13.130 (2002).

202 *Turf Limitations*, *supra* note 136.

Lastly, cities should include measures to incentivize water conservation alongside baseline mandates. The Austin ordinance that exempts homeowners from the city watering schedule if they have drip irrigation systems is a fine example of incentivizing conservation. Such an ordinance gives the homeowner a sense of choice and control over her watering schedule, which encourages the homeowner to take the extra step to install a drip irrigation system to gain access to the exemption. Ordinances like these also pair well with rebate and education programs, discussed in the section below.

It is worth noting that major cities are not the only ones that should revise their municipal codes to encourage conservation; smaller cities and towns should do so as well. However, major cities should lead the way in making these efforts because they have greater access to resources than smaller cities.[203] Additionally, because larger cities have a much greater population than smaller cities and counties,[204] changes made to the city code of ordinances in large cities will have a greater effect than those of smaller cities and counties. Therefore, larger cities can achieve greater water conservation than smaller cities and counties overall and should lead the charge in amending their municipal codes to encourage such conservation.

2. Increasing Incentives and Education

Alongside updating and amending their ordinances to institute conservation measures, Texas cities should also institute more aggressive rebate and education programs. Though many Texas cities already have rebate plans in place,[205] these programs do not reach as far as the programs instituted by the cities profiled above.

For one, the turf replacement rebate program used in Las Vegas[206] should be instituted by municipalities all across the state. This program goes hand-in-hand with ordinances that mandate turf limitation[207] and detracts from the harsh nature of such a mandate by creating a reward for municipal residents who decide to take their water conservation efforts beyond city mandates. A few Texas cities have already instituted turf rebate and replacement programs.[208] For example, in 2011, the City of El Paso reported paying $11 million over the years, at a rate of $1 per square foot, to residents who

---

203 *Compare State & County QuickFacts: Dallas (city), Texas*, U.S. Census Bureau, http://quickfacts.census.gov/qfd/states/48/4819000.html [https://perma.cc/3YEV-8EQ7] (last visited Jan. 30, 2016) *with State & County QuickFacts: Wilbarger County, Texas*, U.S. Census Bureau, http://quickfacts.census.gov/qfd/states/48/48487.html [https://perma.cc/KD2P-69ST] (last visited Jan. 30, 2016). While Dallas alone has 1,281,047 residents as of 2014, Wilbarger County, located on the Texas-Oklahoma border, has only 12,973 residents as of 2014 – around 10% of the population of the City of Dallas.

204 *See id.*

205 *See, e.g.*, *Water Conservation – Rebates*, *supra* note 124.

206 *Water Smart Landscapes Rebate*, *supra* note 138.

207 *See, e.g.*, El Paso, Tex., Code of Ordinances, title 15, ch. 15.13, § 15.13.130 (2002).

208 *See Grass Replacement Rebate Form*, New Braunfels Utils., http://www.nbutexas.com/Conservation/Rebates/WaterConservationRebates/GrassRemovalRebateForm.aspx [https://perma.cc/GR6F-K986] (last visited Jan. 30, 2016); *WaterSaver Landscape Coupon*, San Antonio Water Sys., http://www.saws.org/Conservation/Outdoor/Coupon/ [https://perma.cc/8H4H-UV5L] (last visited Jan. 30, 2016).

participated in the city's turf replacement rebate program.[209] Even Austin, which has not seen a large rise in xeriscaping,[210] has served over 200 city residents with its WaterWise Landscape Rebate Program.[211] Of course, rebates for turf replacement are only one example of the rebate programs all major cities should provide; cities should also provide rebates for upgrading irrigation technology (such as replacing sprinkler heads with drip irrigation systems) and installing rainwater harvesting systems.

Rebate programs can provide significant savings, but they cannot accomplish an increase in ultra-local conservation by themselves. Cities must also provide increased education about conserving water at the ultra-local level. Comprehensive irrigation manuals and conservation guides like those provided by the City of Santa Fe[212] and the Texas Water Development Board[213] are a good start, but residents cannot take advantage of these programs if they are not made aware of them. Similar issues apply with gray water reuse programs:[214] municipal residents cannot take advantage of these programs if they are not made aware of them. To encourage use of city water conservation materials, cities across Texas should focus on advertising their programs. Placing posters at city bus stops and around city property or including information about rebate programs on municipal utility bill payment websites[215] are examples of ways to increase awareness of these programs.

Texas cities also need to make promotion of water conservation efforts a top priority. Part of the reason water conservation in Tucson has achieved a high level of success is due to the mayor's focus on making water conservation a major goal for the city's residents.[216] Cities should refocus their values from pride in lush green lawns[217] to pride in saving the most water they possibly can. In order to do so, cities need to balance mandates with choice. A block pricing system like the one instituted in Tucson[218] is effective at reducing water usage because municipal water customers cannot escape the pricing system; they must either reduce their usage or pay a higher bill. However, such a system, as is the case with other mandates, might make individual homeowners feel trapped by municipal authorities. Therefore, pairing a block pricing structure with an option that provides choice, such as allowing residents to choose what days (or day) of the week they

---

209 Linda Stewart Ball, *El Paso Weathers Drought, Thanks to Lawn Policy*, NATIONAL PUBLIC RADIO (Aug. 27, 2011, 2:40 p.m.), http://www.npr.org/2011/08/27/139994008/el-paso-weathers-drought-thanks-to-lawn-policy [https://perma.cc/3ELR-Z2US].

210 Cally Bean & Chris Sadeghi, *Watering Your Lawn Once a Week could be a Permanent Restriction in Austin*, KXAN (Jul. 1, 2015, 10:31 a.m.), http://kxan.com/2015/07/01/watering-your-lawn-once-a-week-could-be-a-permanent-restriction-in-austin/ [https://perma.cc/GA5U-B536].

211 *Id.*

212 LANDSCAPE IRRIGATION DESIGN STANDARDS, *supra* note 152, at I-2.

213 THE TEXAS MANUAL ON RAINWATER HARVESTING, *supra* note 24, at 5.

214 EL PASO, TEX., CODE OF ORDINANCES, title 18, ch. 18.47, § 18.47.120 (2008).

215 The effectiveness of this action depends on whether the bill can be paid online. Including information in paper bills may also be effective, but customers tend to ignore extraneous information included in their monthly bills.

216 Holthaus, *supra* note 165.

217 Ball, *supra* note 207.

218 *See* Current Water Rate Schedules, City of Tucson, http://www.tucsonaz.gov/water/rates [https://perma.cc/4E2C-LJ3T] (last visited Jan. 30, 2016).

wish to water,[219] gives individual homeowners the sense that they continue to have control over their household water use without sacrificing any valuable water conservation measures.

C. The Individual Level

Of course, the state and the city are not the only actors that have the ability to encourage change. Concerned individual homeowners should also take steps to prevent their POAs from hindering their ability to conserve water as they see fit by banding together to demand change within the community.

Though it may seem difficult for individual property owners to combat the desires of POAs, the law is becoming increasingly favorable to individuals who wish to do so. In 2002, the Texas Legislature enacted the Texas Residential Property Owners Protection Act[220] to provide individual property owners with greater protections against the actions of POAs. The Act requires that POAs allow any individual homeowner within the subdivision to attend its board meetings[221] and requires POAs to give notice to all individual property owners at least ten days in advance before conducting an election or vote.[222]

The greater transparency that the Texas Residential Property Owners Protection Act requires of POAs allows the homeowner to attend meetings and raise concerns about POA-enacted by-laws.[223] The homeowner can also use these meetings to remind the governing board of the POA of the laws that prevent them from restricting water conservation measures. By raising concerns at meetings, the homeowner can avoid both POA-assessed fines and resorting immediately to litigation to raise his concerns.

Homeowners can also take action by meeting with local officials. All city councils and city municipal codes have procedures in place for the proposal and passage of new ordinances[224] and many proposed and sample ordinances are available online.[225] The homeowner can use these resources to request a meeting before the city council and discuss new water conservation initiatives she believes should be included in the code of ordinances, ensuring that her concerns are heard.

VI. Conclusion

The POA has long been the bane of the individual homeowner who wishes to exercise a measure of self-control over the look and use of his own property. POA-enacted deed restrictions can prevent any change to the aesthetics of an individual lot. Though Texas law prevents POAs from banning changes in landscapes that conserve water, as

---

219 *See*, *e.g.*, Mandatory Watering Schedule, *supra* note 142.

220 Texas Residential Property Owners Protection Act, 77th Leg., R.S., ch. 926, § 1, 2001 Tex. Sess. Law Serv. 1751 (West) (codified as amended at Tex. Property Code Ann. §§ 209.001–.011 (West 2015)).

221 Tex. Prop. Code § 209.0051 (2016).

222 *Id.* § 209.0056 (2016).

223 *See* Tex. Prop. Code § 209.0051 (2016).

224 *See*, *e.g.*, Austin, Tex., Code of Ordinances, Charter, art. IV.

225 *See*, *e.g.* Burnet, Tex. Ordinance No. 2015-12 (Jun. 23, 2015).

the story of Stephen Bender tells us, POAs can and do still act irresponsibly toward the environment and conservation values. Such actions warrant change.

It is important to act sooner rather than later to facilitate water conservation. Closing the loopholes in the state statutes and mandating conservation efforts in municipal ordinances will effectively shut down the power of the POA to stop water conservation in the name of aesthetics. Increased power to the individual homeowner is necessary; providing extra protection for homeowners in the Texas statutes will help individuals in subdivisions fight back against the far-reaching power of the POA. Cities can also increase available resources and knowledge by drawing on the conservation efforts of other successful cities and providing rebate and education programs. These programs help facilitate the efforts of already conservation-minded individuals and help encourage individuals who might otherwise be indifferent toward conservation to take steps to save water with the promise of saving money.

Texas and its municipal authorities have an important role to play in reducing the power of the POA in favor of not just individual homeowners, but the state and its future as a whole. The future of our water supply should not suffer simply because POAs continue to subscribe to idiosyncratic, outdated aesthetic preferences.

Katherine Leuschel is a third-year law student at The University of Texas School of Law and the Editor-in-Chief of Volume 46 of the TEXAS ENVIRONMENTAL LAW JOURNAL. *She would like to thank Professor Jane Cohen for all her assistance in the composition of this article.*

EPA's Revised National Ambient Air Quality Standard for Ozone

Introduction

On October 26, 2015, the EPA promulgated a revised eight-hour primary and secondary National Ambient Air Quality Standard (NAAQS) for ozone at a level of 70 parts per billion (ppb),[1] concluding that the existing standard of 75 ppb fell short of the statutory mandate for the protection of public health.

This Development Article provides an overview of the revised standard and briefly examines legal challenges to the EPA's action within the federal courts. The article also briefly reviews the regulatory background of the EPA's action.

Regulatory Background

Ozone is a naturally occurring gas composed of three oxygen molecules, commonly denoted as O_3,[2] which forms due to chemical reactions between nitrogen oxides and volatile organic compounds emitted from industrial facilities, power plants, and vehicle exhaust.[3] Once ozone penetrates the human body, it permeates the respiratory system causing inflammation of the airways and the impairment of lung function.[4] It has long been viewed as a useful surrogate for urban "smog." Congress understood the significant dangers that stem from breathing polluted air as early as 1963 when it first enacted the Clean Air Act ("Act" or CAA) to protect and enhance the quality of the nation's air resources.[5] However, in recent years, the scope and complexity of the pollution problem has greatly increased because most of the country's population remains concentrated within densely populated and growing metropolitan areas. This has prompted Congress to pass a series of amendments that led to a dramatic expansion of federal regulatory authority.[6] The principal effect was to focus available resources on federal regulatory oversight of mobile and industrial pollution sources.[7]

Nevertheless, the Act recognizes that the states are primarily responsible for controlling air quality. The CAA prohibits states from promulgating rules and regulations that are less stringent than required by the federal scheme. However, a state may choose to impose stricter ambient air standards.[8] States routinely preside over permitting and enforcement proceedings against emission sources that exceed applicable emission limits.

---

1 National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65,292 (Oct. 26, 2015) (to be codified 40 C.F.R. pts. 50, 51); *see also* 42 U.S.C. § 7409 (2015).

2 National Ambient Air Quality Standards, U.S. Envtl. Prot. Agency (2016) http://www3.epa.gov/ttn/naaqs/criteria.html (last visited Feb. 2, 2016).

3 *Id.*

4 *Id.*

5 42 U.S.C. § 7401 (2015).

6 *Id.* Major amendments to the Clean Air Act, requiring regulatory controls for air pollution, were passed in 1970, 1977 and 1990.

7 *See id.* § 7511b.

8 *Id.* § 7412(*l*)(1).

When a new or revised NAAQS is promulgated, states are required to develop and submit revisions to their State Implementation Plans (SIPs), with emission reduction strategies for bringing areas of nonattainment into compliance.[9]

REVISING THE OZONE RULES

In revising NAAQS for ozone, the EPA Administrator considers evidence and risk-based assessments.[10] These include data collected from controlled exposure assessments, toxicological reports, and epidemiologic studies.[11] Nevertheless, the revised standard is considered by some as still higher than optimal levels. The Clean Air Scientific Advisory Committee indicated that the ideal lower bound of 60 ppb would be most conducive to protecting public health.[12]

In promulgating the revised standard, the EPA Administrator determined that the best available clinical data demonstrated that a standard of 72 ppb is the lowest recorded ozone concentration to cause adverse health effects in healthy, active adults.[13] From there, an additional "margin of safety" called for by the Act was added, with the intent of protecting vulnerable populations, including children, the elderly and persons suffering from heart and lung ailments.

CHALLENGING THE OZONE RULES

Challenges to the revised ozone standard have emerged from several states, including Texas. These challenges present significant questions regarding the EPA's implementation of its authority.[14] Because of the importance of effective ground-level ozone regulations, the outcome from these proceedings is of great significance to more than just Texas.

Texas' petition for review contends that compliance with the new regulations would impose serious financial burdens on the Texas economy for dubious health benefits, and that the revised standard is not supported by scientific data. Regarding the issue of economic burdens, a similar argument was before the Supreme Court in *Whitman v. American Trucking*.[15] In *Whitman*, the EPA had recently amended the national ambient air quality standards for ozone under CAA section 109(b)(1).[16] Several states and industry

---

9 *Id.* § 7502(a)(2). A non-attainment area is an area within a specific locale designated by the state to be in non-compliance with the ambient air quality standards.

10 National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65,292, 65,317 (Oct. 26, 2015) (to be codified 40 C.F.R. pts. 50, 51).

11 *Id.*

12 Katie Valentine, *The EPA is Set to Issue Rule Curbing A Dangerous Form of Air Pollution*, THINK PROGRESS (Sep. 29, 2015, 8:00 AM), http://thinkprogress.org/climate/2015/09/29/3706306/ozone-rule-coming-soon (A NAAQS of 60 ppb was estimated to prevent up to 12,000 premature deaths annually).

13 Matthew Daly, *EPA Sets New Ozone Standard, Disappointing All Sides*, THE BIG STORY: AP (Oct. 1, 2015, 4:40 PM) http://bigstory.ap.org/article/a313f973b1994f57b913fd7bf4cff159/ap-sources-epa-tightening-limits-smog-causing-ozone.

14 Texas v. U.S. Envtl. Prot. Agency, Case No. 15-1494 (D.C. Cir. Dec. 23, 2015). *See also* https://texasattorneygeneral.gov/news/releases/texas-sues-obama-administration-over-unrealistic-epa-ozone-rule (last visited Feb 10, 2016).

15 Whitman v. American Trucking, 531 U.S. 457, 462 (2001).

16 *Id.* at 463.

groups challenged the newly promulgated rules contending that the EPA had erred when it modified the NAAQSs without taking into account the costs of compliance.[17] Specifically, the plaintiffs alleged it was too expensive to comply with the NAAQS, and that the revised rules constituted an arbitrary and capricious order by the agency.[18]

The Court expressly held that the EPA's regulation did not require an explicit analysis of costs when proposing revisions to its emissions standards.[19] Writing for the majority, Justice Scalia stated the following:

[F]ederal clean air legislation has, from the very beginning, directed federal agencies to develop and transmit implementation data, including cost data, to the States. That Congress chose to carry forward this research program to assist States in choosing the means through which they would implement the standards is perfectly sensible, and has no bearing upon whether cost considerations are to be taken into account in formulating the standards.[20]

Additionally, Texas has also expressed concern that compliance with the new ozone regulations may be unachievable due to existing background ozone levels within the state's non-attainment areas.[21] However, a similar argument was considered and rejected in the case of *A.P.I. v. Costle*.[22] In that case, the city of Houston argued that natural ozone concentrations, combined with other physical phenomena, made the revised NAAQS standards unattainable.[23] The U.S. Court of Appeals (D.C. Circuit) rejected this argument, holding that the EPA was not required to tailor national regulations to fit each geographic area or locale.[24] The court also reasoned that Congress was aware of the difficulty in satisfying the standards in some locations and had addressed this difficulty through various compliance related provisions within the CAA.[25] It remains to be seen whether this "background" issue can be reframed to support a different result.

As the forgoing discussion demonstrates, the current prospect of Texas prevailing is currently fraught with uncertainty. Despite this fact, an important question remains as to the future of federal regulation of ozone. Recently, the U.S. Supreme Court issued a stay of the Obama Administration's Clean Power Plan, which requires each state to reduce the amount of carbon pollution emitted from power plants by set targets.[26] At the moment, it is unclear how the court will rule in the aftermath of Justice Scalia's passing. Nevertheless, this issue is likely to have far reaching policy implications moving forward.

---

17 *Id.* at 470.
18 *See id.* at 485–87.
19 *Id.* at 486.
20 *Id.* at 470–71.
21 42 U.S.C. § 7502(a)(2) (Within areas designated as nonattainment, a state that cannot meet the NAAQS despite the implementation of all reasonably available measures may seek an extension while working towards compliance).
22 Am. Petroleum Inst. v. Costle, 665 F.2d 1176, 1184 (D.C. Cir. 1981).
23 *Id.* at 1184–86.
24 *Id.* at 1185.
25 *Id.*
26 Greg Stohr & Jennifer A. Dlouhy, *Obama's Clean Power Plan Put on Hold by U.S. Supreme Court*, BLOOMBERG POLITICS (Feb. 9, 2016, 9:32 PM) http://www.bloomberg.com/politics/articles/2016-02-09/obama-s-clean-power-plan-put-on-hold-by-u-s-supreme-court.

CONCLUSION

In sum, the ground level ozone controversy highlights the authority of the EPA to establish national ambient air quality standards at the appropriate level to protect public health and the environment. Since the enactment of the Clean Air Act a half-century ago, there has been significant progress made in improving air quality, sharpening the debate over "how clean is clean."

John B. Turney, former General Counsel to the Texas Air Control Board, is an environmental attorney at Richards, Rodriguez, Skeith L.L.P. He is a graduate of Texas A&M University and The University of Texas School of Law.

Steffen Sowell is a second-year student at The University of Texas School of Law and a Staff Member of the TEXAS ENVIRONMENTAL LAW JOURNAL.

NATURAL RESOURCES

DENBURY GREEN PIPELINE-TEXAS V. TEXAS RICE LAND PARTNERS

INTRODUCTION

Briefs have been filed with the Texas Supreme Court regarding Denbury Green Pipeline-Texas v. Texas Rice Land Partners, a case that concerns a pipeline company (Denbury Green) seeking common-carrier designation for the purposes of eminent domain against a family limited partnership that operates a farm and ranch (Texas Land Partners).[1] The Ninth Court of Appeals in Beaumont remanded the case after reversing the trial court's grant of summary judgment as a matter of law in favor of Denbury Green's status as a common carrier.[2] Texas Land Partners seeks denial of review or affirmation of the court of appeal's decision so that the case can go to full trial on the merits.

BACKGROUND

The parties' dispute has come before the Supreme Court once before, in 2012 ("*Texas Rice I*").[3] The "sole issue" on the current appeal is whether Denbury Green meets the Supreme Court's test for common-carrier status, thereby earning the right to eminent domain.[4]

---

1 Denbury Green Pipeline-Tex., LLC v. Tex. Rice Land Partners, Ltd., No. 15-0225, 2015 WL 9501250.

2 Tex. Rice Land Partners, Ltd. v. Denbury Green Pipeline-Texas, LLC, 457 S.W.3d 115, (Tex. App.––Beaumont 2015, pet. granted).

3 *See* Texas Rice Land Partners v. Denbury Green Pipeline-Texas, 363 S.W.3d 192 (Tex. 2012).

4 *See generally* Brief for the Petitioner, Denbury Green Pipeline-Tex., LLC v. Tex. Rice Land Partners, Ltd., No. 15-0225 (Tex. Nov. 9, 2015), 2015 WL 9501250. Originally, Denbury Green sought an injunction that would allow it to access Texas Rice Land Partners' prop-

In *Texas Rice I*, the Texas Supreme Court adopted a new common-carrier test:

For a person intending to build a CO_2 pipeline to qualify as a common carrier under Section 111.002(6) [*ed note: of the Natural Resources code*], a reasonable probability must exist that the pipeline will at some point after construction serve the public by transporting gas for one or more customers who will either retain ownership of their gas or sell it to parties other than the carrier.[5]

On remand, the trial court granted Denbury Green's summary judgment motion, holding that Denbury Green met the common carrier designation test as a matter of law.[6] The court of appeals reversed and remanded, holding instead that Denbury Green did not meet the *Texas Rice I* common carrier test.[7] Denbury Green filed a motion for rehearing with the appeals court, which was overruled.[8]

Arguments

Denbury Green's appeal to the Supreme Court critiques two primary aspects of the appeals court's holding. First, Denbury Green argues that the appeals court inappropriately raised the standard for what meets the *Texas Rice I* common carrier test through a holding that requires subjective "intent" at the time a pipeline is constructed, as opposed to an "objective reasonable-probability" test set forth by *Texas Rice I*.[9]

Denbury Green also claims that, under the appeals court's ruling, "a court may consider only transportation contracts that could have been adduced at the time the pipeline owner intends to build the pipeline" – that is to say, that a court may not consider contracts that did not exist at the time of intent to build a pipeline but may have existed by the time the common-carrier question was posed.[10] Denbury Green argues that, since many contracts are entered into after construction begins (as construction can occur both before and while the pipeline's eminent-domain authority is challenged), ignoring such contracts for common-carrier designation purposes would hinder pipeline development.[11]

Texas Land Partners, for its part, disagrees with Denbury Green's contention that the court of appeals applied a subjective test to determine how Denbury Green intended to use the pipeline; rather, Texas Land Partners argues, the court used objective evi-

---

erty in order to survey a route for a CO_2 pipeline. The pipeline was completed in 2010 and has been operational since then, but the issue of whether Denbury Green is a common carrier with the power to condemn the land has not been resolved. Denbury Green was able to take possession of the property and build the pipeline while the common-carrier question remained unsettled. Section 21.021(a) of the Texas Property Code "permits a condemnor. . .to take possession even if a property owner is challenging the condemnor's eminent-domain authority, so long as the condemnor posts sufficient bond."

5 Brief for the Respondent, Denbury Green Pipeline-Tex., LLC v. Tex. Rice Land Partners, Ltd., No. 15-0225 (Tex. Dec. 23, 2015), 2015 WL 9501250, at 12-13.

6 Brief for the Petitioner, *supra* note 4, at xi.

7 *Id.*

8 *Id.*

9 *Id.* at 2. Denbury Green argues that this new subjective test "could stunt economic growth in Texas and incentivize pipeline companies to invest in other states" by making it harder to "dispose" of the common-carrier test at summary judgment.

10 *Id.* at 3.

11 *Id.*

dence.[12] Indeed, Texas Land Partners claims that the court of appeals disregarded subjective evidence from Denbury Green concerning its intent with regard to the pipeline.[13] (More broadly, Texas Land Partners is arguing that the pipeline is question is a private line and therefore not a common carrier, arguing that Denbury Green stated its intention to "fully utilize[e]" the pipeline in question.[14]) Texas Land Partners believes that the court of appeals did not deviate from the Supreme Court's "reasonable probability" test, but merely concluded that reasonable minds could differ as to whether the pipeline in question would be used for public use.[15]

If Denbury Green and Texas Land Partners' disagreement boils down to whether the appeals court was using an objective or subjective test for common carrier status, Texas Land Partners argues that "the fact that intent is relevant does not make the reasonable-probability test subjective. . ..[i]ntent is made apparent by objective manifestations."[16] Conceding that summary judgment is appropriate when objective intent is decisively clear, Texas Land Partners argues that summary judgment is inappropriate when such manifestations do not point to a clear answer.[17]

With regard to the issue of the timing in which contracts are entered into, Texas Land Partners disagrees that, in this situation, contracts that were entered into after a pipeline was constructed can be used to establish common carrier status for the purposes of granting summary judgment. Texas Land Partners argues that a company's common carrier status must predate construction and actual service to the public – that is, that a company must be a common carrier at the time that it takes private property, and that nothing authorizes a company to qualify for common carrier status after taking private property.[18] Otherwise, such a dynamic – allowing companies to qualify for common carrier status years after taking property – would "invite[ ] abuse of the possession pending-litigation provision of the eminent domain statutes."[19]

Texas Land Partners argues that "the focus of the reasonable probability test is the point at which the company intends to build the pipeline and initiates condemnation proceedings."[20] While a post-construction contract can be relevant evidence, Texas Land Partners argues that, in this situation, the effect of Denbury Green's statements prior to construction (that it planned to fully utilize the entire pipeline) mean that post-

---

12 Brief for the Respondent, *supra* note 5, at 15-16.

13 *Id.* at 22.

14 *Id.* at 14. Texas Land Partners also quotes this language from *Texas Rice I*: "To qualify as a common carrier with the power of eminent domain, the pipeline must serve the public; it cannot be built only for the builder's exclusive use." Texas Rice Land Partners v. Denbury Green Pipeline-Texas, 363 S.W.3d at 200 (Tex. 2012).

15 Brief for the Respondent, *supra* note 5, at 21-22.

16 *Id.* at 22.

17 *Id.* at 23.

18 *Id.* at 25-26.

19 *Id.* at 26. Similarly, Texas Land Partners notes that the Supreme Court previously rejected an argument that merely registering with the Railroad Commission as a common-carrier would be enough to earn common-carrier status, as such a position might help companies (in Texas Land Partners' words) "game the system and abuse the power of eminent domain." *Id.* at 29.

20 *Id.* at 25.

construction contracts cannot settle the objective reasonability test as a matter of law.[21] In short, Texas Land Partners argues that, while post-construction contracts may be relevant evidence for the reasonable probability test, such a contract cannot satisfy the test if a company had stated prior to construction that it planned to "fully utilize" the pipeline for its private use.[22]

Though the questions of subjective versus objective intent, and the timing of when contracts are entered into, are the primary arguments raised in the parties' briefs, additional issues have been raised. For instance, Denbury Green claims the court of appeals incorrectly increased the degree of "public use" required for common-carrier status. Denbury Green argues that, in *Texas Rice I*, the Supreme Court stated that "any amount" of public use would satisfy the test (provided that a pipeline was not exclusively used by the pipeline company or its affiliates), but that the court of appeals applied a "substantial degree" standard of public use.[23] Denbury Green argues this "substantial degree" requirement "raises the bar for common-carrier status and discourages pipeline development."[24] In contrast, Texas Land Partners argues that the Supreme Court requires a substantial public use.[25]

Additionally, Denbury Green is asking the Supreme Court to determine whether carbon capture and sequestration is, as a matter of law, a "substantial public use" for meeting the common-carrier test.[26] Texas Land Partners contends that private property can only be taken after the Legislature has authorized the taking for a particular public purpose that qualifies as a public use, and that since the Legislature has not authorized taking private property for carbon sequestration, it cannot be a factor enabling the power of eminent domain.[27]

Denbury Green is also asking the Supreme Court to rule on whether pipeline use by a pipeline owner or an affiliate for the benefit of a third party constitutes a public use of the pipeline.[28] Texas Land Partners believes the Court should reject the opportunity to consider the reasonable probability test in light of a beneficial use theory.[29]

Furthermore, Denbury Green is asking the Supreme Court to clarify whether section 2.105 of the Texas Business Organizations Code is an independent source of eminent domain authority for common carriers.[30] Texas Land Partners argues that the Texas Business Organizations Code is not an independent source of eminent domain power, and that it does not provide a definition of "common-carrier" that is different from the definition used by the Texas Natural Resources Code (which was used by the Court in determining its *Texas Rice I* decision).[31] Texas Land Partners contends that the language of the Texas Business Organizations Code precludes corporations from exercising powers

---

21 *Id.*
22 *Id.*
23 Brief for the Petitioner, *supra* note 4, at 5.
24 *Id.* at 6.
25 Brief for the Respondent, *supra* note 5, at 27.
26 Brief for the Petitioner, *supra* note 4, at 11.
27 Brief for the Respondent, *supra* note 5, at 28.
28 Brief for the Petitioner, *supra* note 4, at 12.
29 Brief for the Respondent, *supra* note 5, at 38.
30 Brief for the Petitioner, *supra* note 4, at 13.
31 Brief for the Respondent, *supra* note 5, at 39.

that would be inconsistent with limitations imposed by other laws of the state – and, as such, that a pipeline company cannot rely on the Texas Business Organization Code for more expansive powers of eminent domain than would be allowed by the Texas Natural Resources Code.[32]

Carlos Romo is a Senior Associate at Baker Botts L.L.P. The focus of his practice is environmental, air quality, alternative energy, waste and remediation, and water quality.

Tyler Allard is a second-year student at The University of Texas School of Law and a Staff Member of the TEXAS ENVIRONMENTAL LAW JOURNAL.

SOLID WASTE

ARRANGER LIABILITY UNDER CERCLA

INTRODUCTION

This Development discusses the current state of arranger liability for waste brokers under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) by reviewing *MEMC Pasadena, Inv. v. Goodgames Industrial Solutions*, a recent decision from a district court in the Fifth Circuit.[1] In that case, a waste broker was held liable as an arranger under CERCLA. This article also provides a brief overview of arranger liability in other circuits.

BACKGROUND

CERCLA's section 107(a) imposes liability for the cost of cleaning up environmental contamination by hazardous substances on responsible parties, including those who "arranged" the disposal of the hazardous substances.[2] The purpose of arranger liability is to prevent an entity from circumventing CERCLA liability by contracting with another party its responsibilities of disposing the entity's waste.[3]

The landmark U.S. Supreme Court decision *Burlington Northern & Santa Fe Railway Company v. United States* articulates guidelines as to the definition of "arrange."[4] The Court held that a party must take "intentional steps" to dispose of a hazardous substance

---

32 *Id.* at 40.

1 MEMC Pasadena, Inc. v. Goodgames Indus. Sols., LLC, No. 4:13-CV-599, 2015 WL 6473385 (S.D. Tex., Oct. 27, 2015).

2 42 U.S.C. § 9607(a)(3) (2015).

3 *See* Team Enters., LLC v. W. Inv. Real Estate Trust, 647 F.3d 901, 907 (9th Cir. 2011). *See also* John DiChello, *Mitigating the Risk of Arranger Liability Under CERCLA*, 15 DAILY ENVTL. REPORT 51 (March 17, 2015), https://www.blankrome.com/index.cfm?contentID=37&itemID=3547.

4 Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 600 (2009).

to qualify as an arranger.[5] The "mere knowledge" of spills and leaks is insufficient to establish that a party "arranged for" the disposal of a hazardous substance under CERCLA.[6]

MEMC Pasadena, Inv. v. Goodgames Industrial Solutions

In *MEMC Pasadena, Inv. v. Goodgames Industrial Solutions*, a waste generator successfully held an environmental waste broker and servicer liable for CERCLA contribution in the Southern District of Texas.[7] MEMC contracted with Goodgames Industrial Solutions (GIS) to dispose of sodium silicate waste, which was generated by the manufacturing process at the MEMC facility.[8] At the suggestion of GIS, MEMC approved the U.S. Oil site as its disposal site.[9] U.S. Oil always dealt directly with GIS, and GIS, in turn, billed MEMC for all transportation and disposal costs with a 10% markup on the disposal price.[10] In 2012, the EPA informed GIS that it believed that GIS was liable as an arranger under CERCLA for waste at the U.S. Oil site.[11] MEMC, who was also facing CERCLA liability, sued GIS to seek contribution under section 113 of CERCLA.[12]

The court held that GIS fell within the meaning of CERCLA "arranger."[13] The court held that CERCLA arranger liability can attach whether or not the arranger owns or possesses the hazardous substances, based on the statute's primary interest in shifting the environmental clean-up costs from taxpayers to parties who benefited from the disposal.[14] This holding conforms with the Ninth Circuit interpretation in *Pakootas v. Teck Cominco Metals, Ltd.*,[15] but differs from that of the First Circuit in *Am. Cyanamid Co. v. Capuano*.[16] The court also held that CERCLA arranger liability can attach whether or not the arranger selected the disposal site.[17] This proposition is supported by the fact that there is an explicit statutory requirement that a "transporter" select the site of disposal, whereas the definition of an "arranger" has no such requirement.[18]

The court noted that the U.S. Supreme Court's "intentional steps" test, established in *Burlington Northern*, is the controlling law for determining arranger liability.[19] Using the "intentional steps" test, the court found that the waste at issue was not a useful product and there was sufficient evidence that the broker intended for the waste's dispo-

---

5 *Id.* at 611.
6 *Id.* at 613.
7 MEMC Pasadena, Inc. v. Goodgames Indus. Sols., LLC, No. 4:13-CV-599, 2015 WL 6473385 (S.D. Tex., Oct. 27, 2015).
8 *Id.*
9 *Id.* at *4-5.
10 *Id.* at *5-6.
11 *Id.* at *7.
12 *Id.* at *8.
13 *Id.* at *22.
14 *Id.* at *17-18
15 Pakootas v. Teck Cominco Metals, Ltd., 646 F.3d 1214 (9th Cir. 2011).
16 Am. Cyanamid Co. v. Capuano, 381 F.3d 6 (1st Cir. 2004).
17 *MEMC Pasadena, Inc.* 2015 WL 6473385 at *20-21.
18 *Id.* at *19; *see also*, 42 U.S.C. § 9607(a)(3)-(4).
19 *MEMC Pasadena, Inc.* 2015 WL 6473385 at *20-21 (citing Vine Street LLC v. Borg Warner Corp., 776 F.3d 312, 317 (5th Cir. 2015)).

sal.[20] Therefore, per the ordinary meaning of "arrange," the broker planned or prepared for the waste's disposal and was liable as an "arranger," despite lacking the authority to make the ultimate decision about disposal.[21] The court also entered summary judgment for the generator under the Texas Solid Waste Disposal Act (TSWDA) because TSWDA liability follows CERCLA liability.[22]

OTHER DEVELOPMENTS IN ARRANGER LIABILITY UNDER CERCLA

THE FIRST CIRCUIT

In *United States v. General Electric*, the First Circuit Court of Appeals affirmed the judgment holding General Electric (GE) liable as an arranger.[23] GE purposefully entered into an arrangement with Fletcher, a paint manufacturer, with the desire to be rid of scrap Pryanol.[24] Fletcher purchased scrap Pyranol from GE at bargain prices to use as a plasticizer additive for his paint.[25] After approximately 10 years, Fletcher began missing payments, but GE nonetheless continued to deliver shipments of Pyranol.[26] Approximately 20 years later, the EPA found hundreds of drums of scrap Pyranol on Fletcher's property and pursued to recover cleanup costs from GE, under the inference that GE "arranged for disposal" of a hazardous substance under section 107(a)(3) of CERCLA.[27]

The First Circuit Court of Appeals concluded that GE viewed the scrap Pyranol as a waste, and not as a useful product.[28] For example, GE stored the scrap Pyranol in drums labeled as "scrap" and "waste" in salvage areas, and pursued arrangements to reduce its stockpile of scrap Pyranol.[29] Additionally, there was no evidence that a market for scrap Pyranol existed, and the evidence showed that "any profit derived from selling scrap Pyranol to Fletcher was subordinate and incidental to the immediate benefit of being rid of an overstock of unusable chemicals."[30]

The First Circuit Court of Appeals found that GE controlled the amount and quality of the scrap Pyranol delivered to Fletcher.[31] Despite the fact that Fletcher requested GE to pick up the contaminated and unusable scrap Pyranol, GE continued to make deliveries even after Fletcher missed payments.[32] GE thereafter wrote off Fletcher's debt and left Fletcher with the burden of disposing of the scrap Pyranol.[33] The court stated that GE took the "conscious and intentional step of leaving Fletcher to dispose of the materi-

---

20 *MEMC Pasadena, Inc.* 2015 6473385 at *20-21.
21 *Id.* at *21-22.
22 *Id.* at *23.
23 United States v. Gen. Elec. Co., 670 F.3d 377, 394 (1st Cir. 2012).
24 *Id.* at 380.
25 *Id.*
26 *Id.* at 381.
27 *Id.*
28 *Id.* at 384.
29 *Id.* at 385.
30 *Id.* at 386.
31 *Id.* at 380.
32 *Id.*
33 *Id.* at 381.

als."[34] Therefore, the First Circuit Court of Appeals concluded that GE was liable for arranging the disposal of a hazardous substance under CERCLA.

The Second Circuit

In *DVL Inc. v. Niagara Mohawk Power Corporation*, the Second Circuit Court of Appeals affirmed the district court's denial of plaintiff, DVL Inc.'s, motion for partial summary judgment on its arranger liability claim, and affirmed the grant of summary judgment on that claim in favor of defendants, Niagara Mohawk Power Corp. and General Electric.[35] The court ruled that DVL failed to offer sufficient evidence that GE and Niagara Mohawk arranged for the disposal of the contamination found on DVL's site.[36] DVL only offered evidence that GE used PCB's, the contamination found at the DVL site, but no evidence to show that GE disposed or intended to dispose of the PCB's waste at the DVL site.[37] Similarly, DVL only offered evidence that Niagara Mohawk provided electrical service near the DVL site using transformers that contained PCBs, but DVL did not present any evidence that transformers found at the DVL site originated from Niagara Mohawk.[38] Absent any evidence that GE or Niagara Mohawk took intentional steps to discard PCBs at the DVL site, those parties could not be held liable as arrangers under section 107(a)(3) of CERCLA.[39]

The Third Circuit

In a fairly clear-cut case of *Litgo New Jersey Inc. v. Commissioner New Jersey Department of Environmental Protection*, the Third Circuit Court of Appeals affirmed the district court's ruling that the U.S. was liable for cleanup costs under CERCLA because it arranged for disposal of hazardous substances at the Litgo site.[40] The district court rejected the U.S. argument that the government should not be liable because it arranged for storage, as opposed to disposal of the waste.[41] The district court distinguished the storage's purpose being of temporary use, while the evidence suggested that the U.S. intended to permanently get rid, i.e. dispose, of what they believed to be waste products.[42]

The Fifth Circuit

The Fifth Circuit Court of Appeals revisited the scope of arranger liability in *Vine St. LLC v. Borg Warner Corporation*.[43] In that case, Norge designed, installed, and sold dry cleaning equipment, including dry cleaning machines and a drainage system that included water separators that released wastewater into the sewer and recycled per-

---

34 *Id.* at 391.
35 DVL, Inc. v. Niagara Mohawk Power Corp., 490 Fed.Appx. 378, 384 (2d Cir. 2012).
36 *Id.* at 383.
37 *Id.*
38 *Id.*
39 DiChello, *supra* note 3.
40 Litgo New Jersey Inc. v. Comm'r New Jersey Dep't of Envtl. Prot., 725 F.3d 369, 390 (3d Cir. 2013).
41 *Id.* at 380.
42 *Id.*
43 Vine Street LLC v. Borg Warner Corp., 776 F.3d 312, 313 (5th Cir. 2015). *See also* DiChello, *supra* note 3.

chloroethylene ("perc") for future use.[44] Norge modified the design of the water separators to minimize the loss of perc, an expensive chemical, but the perc continued to escape from the sewer system impacting soil and groundwater.[45] Vine Street LLC sought to recover a portion of the cleanup costs under section 107(a)(3) of CERCLA on an arranger liability theory.[46]

The Fifth Circuit reversed the district court's ruling and concluded that Norge did not constitute an "arranger" because it did not intend to discharge perc.[47] The court reasoned that while Norge knew that perc would escape the water separators and enter the sewer system and that a discharge was inevitable, Norge intended for the water separators to recycle perc for future use, not to dispose of it.[48] Additionally, the court found that the relationship between Norge and College Cleaners "centered around the successful operation of a dry cleaning business – not around the disposal of waste."[49] Therefore, the court ruled that Norge lacked the necessary intent to qualify as an arranger under CERCLA.[50]

Ali Abazari is a partner with Jackson Walker L.L.P. who specializes in industrial waste management, strategic environmental planning, environmental auditing, Superfund, underground storage tanks, underground injection disposal wells, transactional issues involving the sale and acquisition of contaminated properties, water utilities, and water quality. He previously served as a regulatory specialist at URS Corporation and as an attorney in the Litigation Division of the Texas Commission on Environmental Quality.

Manish Gianchandani is a second-year student at The University of Texas School of Law and a staff member of the TEXAS ENVIRONMENTAL LAW JOURNAL.

WASHINGTON UPDATE

COMPROMISE IN THE CONSOLIDATED APPROPRIATIONS ACT: EXTENDING RENEWABLE ENERGY TAX CREDITS AND THE LIFTING OF THE BAN ON THE EXPORT OF CRUDE OIL

INTRODUCTION

On December 18, 2015, President Obama signed the Consolidated Appropriations Act of 2016 ("Act"), an omnibus bill that both extended the federal tax credits for solar and wind facilities and lifted the decades-long ban on export of crude oil produced in the

44 *Vine Street*, 776 F.3d at 314.
45 *Id.* at 315.
46 *Id.*
47 *Id.* at 320.
48 *Id.* at 314.
49 *Id.* at 319.
50 *Id.* at 320.

United States.[1] The Act extended the expiration date for the renewable electricity production tax credit (PTC) to December 31, 2019, for wind facilities commencing construction in 2016.[2] The Act further provides a phase-down approach for wind projects with construction beginning after December 31, 2016.[3] Similarly, the Act extended the investment tax credit (ITC) for solar projects.[4] Wind and solar interests believe that the extended tax credits, along with the Clean Power Plan, will lead to more wind and solar development.[5] As a compromise between Republicans and Democrats, Congress also lifted the 40-year ban on exports of crude oil produced in the United States.[6] Domestic crude oil producers have already taken advantage of the lifting of the export ban.[7]

Background

The PTC was originally enacted as part of the Energy Policy Act of 1992 but has since been renewed and expanded many times.[8] The PTC is "an inflation-adjusted per-kilowatt-hour (kWh) tax credit for electricity generated by qualified energy resources and sold by the taxpayer to an unrelated person during the taxable year."[9] Section 1102 of the American Recovery and Reinvestment Act of 2009 enabled developers to choose a 30% ITC instead of the PTC for wind and other renewable energy facilities.[10] Then, the American Taxpayer Relief Act of 2012 gave a one-year extension of the PTC and ITC for wind facilities for which construction began before January 1, 2014 for another year.[11] In December of 2014, Congress once again granted extensions of the PTC and ITC for wind facilities, though this only extended the deadline to begin construction to

---

1 Richard Allan, *Congress's Budget Compromise Lifts Crude Oil Export Ban and Extends Wind and Solar Tax Credits*, Marten Law (Jan. 21, 2016), http://www.martenlaw.com/newsletter/20160121-congress-budget-compromise.

2 Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, § 301(a)(1)–(2), 129 Stat. 2242, 3038 (2015) (codified as amended at 26 U.S.C. § 45(d)).

3 *Id.* § 301(a)(2).

4 *Id.* § 303(a)–(b) (codified as amended at 26 U.S.C. § 48(a)).

5 *See* Ken Silverstein, *Tax Credits for Wind and Solar Will Deliver but Will Definitely Be Phased Out*, Forbes, Jan. 7, 2016, http://www.forbes.com/sites/kensilverstein/2016/01/07/tax-credits-for-wind-and-solar-will-deliver-but-will-definitely-be-phased-out/#610ef1fc1554 (noting that wind and solar "developers know that they will receive favorable treatment while the utilities will be required to buy such power to comply with the regulations that will require a 32 percent cut in carbon dioxide emissions by 2032"). However, the future of the Clean Power Plan has been called into question after the Supreme Court temporarily blocked the EPA's rule to regulate carbon dioxide emissions from coal-fired plants. Adam Liptak & Coral Davenport, *Supreme Court Deals Blow to Obama's Efforts to Regulate Coal Emissions*, N.Y. Times, Feb. 9, 2016, http://www.nytimes.com/2016/02/10/us/politics/supreme-court-blocks-obama-epa-coal-emissions-regulations.html?_r=0.

6 *See* Allan, *supra* note 1 (recognizing that lifting the ban on the export of crude oil was "a goal of Republican leadership").

7 *Id.*

8 *Renewable Electricity Production Tax Credit (PTC)*, Energy.gov, http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc (last visited Feb. 8, 2016).

9 *Id.*

10 Allan, *supra* note 1 (citing 26 U.S.C. § 48(a)(5)).

11 *Id.*

the end of 2014.[12] Because of the uncertainty regarding whether beginning construction of a wind facility would vest the right to federal tax credits, investment in the wind industry would "slow[ ] to a halt during the year leading up to . . . [the] expiration dates [of the credits]."[13]

While solar facilities were previously eligible for the PTC, the eligibility ended with facilities placed in service in 2005.[14] However, the Energy Policy Act of 2005 made solar facilities eligible for a 30% ITC.[15] The Emergency Economic Stabilization Act of 2008 then extended the ITC to include solar facilities placed in service before January 1, 2017, and provided that solar facilities placed in service after that date would be eligible for a 10% ITC.[16]

These tax credits for wind and solar facilities are relatively new compared to the ban on the export of crude oil produced in the United States, which was implemented in 1975 as part of the Energy Policy and Conservation Act (EPCA).[17] The EPCA was enacted in response to the Arab oil embargo in 1973 to "increase domestic energy supplies and availability; to restrain energy demand; [and] to prepare for energy emergencies," and the banning of American crude oil exports was one way to meet this goal.[18] While the ban on the export of U.S.-produced crude oil has included exceptions, the ban remained largely intact until it was lifted by the Act in 2015.[19]

OVERVIEW OF THE ACT

For wind facilities, Title III of Division P of the Act reinstates the PTC and the ITC, applying retroactively to January 1, 2015.[20] Developers of wind facilities on which construction begins in 2016 (or began in 2015) can chose either the PTC or the 30% ITC.[21] Both the PTC and the ITC are reduced each year for facilities for which construction begins in 2017 through 2019.[22] The PTC is reduced by 20% for facilities with construction beginning in 2017, 40% for facilities with construction beginning in 2018, and 60%

---

12 *Id.*

13 *Id.* (quoting *Federal Wind Energy Policy*, AMERICAN WIND ENERGY ASS'N, http://www.awea.org/Advocacy/Content.aspx?ItemNumber=791 (last visited Feb. 8, 2016)).

14 *Id.* (citing 26 U.S.C. § 45(d)(4)(a)).

15 *Id.* (citing Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594).

16 *Id.* (citing Emergency Economic Stability Act of 2008, Pub. L. No. 110-343, § 103(a), 122 Stat. 3765, 3811 (2008)).

17 *See* Sam Andre, Note, *Striking Before the Well Goes Dry: Exploring if and How the United States Ban on Crude Oil Exports Should Be Lifted to Exploit the American Oil Boom*, 100 MINN. L. REV. 763, 763 (2015) (explaining that when the EPCA was passed, "the 1973Arab oil embargo's painful images of high energy prices and seemingly endless gas station lines [were] still lingering in the minds of the U.S. population").

18 Energy Policy and Conservation Act of 1975, Pub. L. No. 94–163, 89 Stat. 871, 871 (1975); Andre, *supra* note 17, at 763.

19 Allan, *supra* note 1.

20 Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, §§ 301–02, 129 Stat. 2242, 3038–39 (2015).

21 *Id.*

22 *Id.*

for facilities with construction beginning in 2019.[23] The ITC for wind facilities is reduced on the same scale.[24]

The Act also extended eligibility for the 30% ITC to solar facilities for which construction begins before January 1, 2020.[25] The Act includes reductions in the ITC for solar facilities with construction beginning in 2020 and 2021, with the energy percentage reduced to 26% and 22%, respectively.[26] Additionally, if construction on a solar facility begins before January 1, 2022, but the facility "is not placed in service before January 1, 2024, the energy percentage . . . shall be equal to 10 percent."[27] This amendment of the Internal Revenue Code took effect on the date of the enactment of the Act.[28]

Going Forward

The Act's compromise appears to be a "win" for both parties.[29] Renewable energy interests are excited about the growth of the industry that will be spurred by the PTC and ITC extensions.[30] Additionally, while some environmentalists are concerned about the lifting of the export ban on domestically-produced crude oil, others believe that this is a "net positive" for the climate, at least over the next few years.[31] One prediction suggests that "[t]he net impact of the exports-for-renewables-credits trade . . . is to reduce carbon dioxide emissions by at least 20-40 million metric tons annual[ly] over the 2016-

23 *Id.* § 301(a)(2).
24 *Id.* § 302(b).
25 *Id.* § 303(a)-(b).
26 *Id.* § 303(b).
27 *Id.*
28 *Id.* § 303(d). This is different than the amendments in sections 301 and 302, which retroactively took effect January 1, 2015, likely to bring in the facilities that would have otherwise been left without access to the PTC and ITC due to the gap in legislation. *See id.* §§ 301-02 (stating that the amendments made in those sections took effect on January 1, 2015).
29 Stephen Lacey, *Congress Passes Tax Credits for Solar and Wind: 'Sausage-Making at Its Most Intense'*, Greentech Media (Dec. 18, 2015), http://www.greentechmedia.com/articles/read/breaking-house-passes-1.1-trillion-spending-bill-with-renewable-energy-tax.
30 *See id.* (explaining that the ITC extension could spur almost 100 cumulative gigawatts of solar installations by 2020 and that "the PTC extension would support tens of gigawatts of new wind projects through 2020"). Solar and wind are not the only renewable energy sources that benefit from the extension of tax credits; Section 187 of the Act extended the PTC for other facilities that produce energy from various renewable resources, such as closed-loop and open-loop biomass facilities, geothermal energy facilities, landfill gas facilities, and more. Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, § 187, 129 Stat. 2242, 3074 (2015).
31 *See* Varuan Sivaram & Michael Levi, *Budget Deal Oil-for-Renewables Trade Would Substantially Reduce Carbon Emissions*, Council on Foreign Rel.: Energy, Security, and Climate (Dec. 18, 2015), http://blogs.cfr.org/levi/2015/12/18/budget-deal-oil-for-renewables-trade-would-substantially-reduce-carbon-emissions/ (determining that "[e]xtension of the tax credits will do far more to reduce carbon dioxide emissions over the next five years than lifting the export ban will do to increase them").

2020 period."[32] Others assert that "lifting the ban will have negligible effects on emissions and commodities markets in what amounts to a zero-sum game."[33]

From the oil and gas side, producers are already taking advantage of the lifting of the crude oil export ban.[34] Additionally, the industry has identified potentially positive outcomes, such as an increased market for light, sweet crude oil from shale.[35] It has been suggested that the lifting of the ban will encourage shale-oil producers to pump more oil.[36] However, not everyone shares in the enthusiasm regarding the lifting of the ban; some argue that the lifting of the ban may cause the United States to become more dependent on foreign oil.[37]

Joshua D. Katz is an attorney with Bickerstaff Heath Delgado Acosta L.L.P. in Austin. Mr. Katz practices environmental law, administrative law, water law, electric utility regulation, and related litigation. He received his law degree from the University of Houston Law Center.

Lisa Garrett is a second-year student at The University of Texas School of Law and a Staff Member of the TEXAS ENVIRONMENTAL LAW JOURNAL.

FEDERAL CASENOTE

UNITED STATES V. CITGO PETROLEUM CORPORATION, 801 F.3D 477, 494 (5TH CIR. 2015)

INTRODUCTION

On September 9, 2015, the United States Court of Appeals for the Fifth Circuit ruled that the ban on "takings" under the Migratory Bird Treaty Act (MBTA) applies

32 *Id.*

33 Chris Nelder & Mark Silberg, *Congress Extends the Renewable Investment Tax Credit: What Now*, GREENBIZ (Dec. 28, 2015, 12:30 AM), https://www.greenbiz.com/article/congress-extends-renewable-investment-tax-credit-what-now.

34 *See* Allan, *supra* note 1 (recognizing that several shipments of crude oil have left Texas ports in the weeks since President Obama signed the Consolidated Appropriations Act).

35 *America Lifts Its Ban on Oil Exports*, THE ECONOMIST (Dec. 18, 2015), http://www.economist.com/news/finance-economics/21684531-light-sweet-compromise-puts-end-crude-market-distortions-america-lifts. Additional possible positive outcomes include giving refineries outside the U.S. access to a wider variety of oil (and therefore enabling such refineries to operate more efficiently) and making oil trading more efficient by making West Texas Intermediate "a global benchmark for light, high-grade crudes to rival Brent, an international benchmark that is based on a mix of heavier crudes." *Id.*

36 *See id.* (suggesting that shale-oil producers will pump more oil when oil prices recover from the 2015 slump).

37 Jack Luellen, *Lifting the Ban Could Make US More Reliant on Foreign Oil*, LAW360 (Oct. 26, 2015, 11:10 AM), http://www.law360.com/articles/714260/lifting-the-ban-could-make-us-more-reliant-on-foreign-oil.

only to intentional acts that directly kill migratory birds.[1] In the same case, it further ruled that Subpart QQQ of the Clean Air Act (CAA) regulations only apply to "equipment conventionally, not merely functionally, known as oil-water separators, along with specifically described ancillary equipment."[2] The court reversed the district court's criminal convictions, and remanded the case with instructions to enter a judgment of acquittal on all counts.[3]

Background

CITGO owns two large petroleum refining facilities in Corpus Christi, each subject to a dizzying array of environmental regulations at both the federal and state level. The combined plants cover roughly 890 acres and process an average of 157,000 barrels of crude oil per day, generating a significant amount of wastewater in the process.[4] At issue here is CITGO's use of two large equalization tanks, tanks 116 and 117, each 30 feet tall and 240 feet in diameter, as part of its wastewater treatment.[5] At the facility, drains collect wastewater and funnel it to two enhanced oil-water separators, where a majority of the separable oil is recovered.[6] From the separators, the water flows to the equalization tanks, and then into secondary treatment systems, including air flotation, biological treatment, and clarification.[7] The equalization tanks serve as a buffer between the oil-water separators and secondary treatment, effectively shielding those more sensitive processes from being overwhelmed by the unpredictable discharges that are commonplace in the industry.[8] To minimize emissions of volatile organic compounds in the wastewater treatment process, subpart QQQ requires oil-water separators to have roofs.[9] By contrast, equalization tanks are not required to have roofs.[10]

In early 2002, inspectors from the Texas Commission on Environmental Quality (TCEQ) discovered 130,000 barrels of oil in the equalization tanks, leading them to surmise that the tanks were actually being used as oil-water separators.[11] While the designated oil-water separator tanks had the statutorily-mandated roofs, the equalization tanks were not covered, allowing the release of volatile organic compounds into the air.[12] TCEQ thus cited CITGO for violating the CAA by operating tanks 116 and 117 as oil-separation tanks without the required roofs.[13]

In addition to alleged violation of the CAA, the open tanks posed a serious hazard to wildlife. Corpus Christi sits in the migration corridor for over two hundred bird species, and has been named the "birdiest city in America" by the National Audubon Soci-

---

1 United States v. CITGO Petroleum Corp., 801 F.3d 477, 494 (5th Cir. 2015).
2 *Id.*
3 *Id.*
4 *About Us*, CITGO Refining, http://www.citgorefining.com/corpus-christi/about-us (last visited Mar. 9, 2016).
5 *CITGO Petroleum Corp.*, 801 F.3d at 480.
6 *Id.*
7 *Id.*
8 *Id.*
9 *Id.* 40 C.F.R. § 692-4 (2015).
10 *Id.*
11 *Id.*
12 *Id.*
13 *Id.*

ety.[14] Indeed, the nearby Aransas National Wildlife Refuge is a world-class birding destination home to a stunning array of migratory birds.[15] During the time tanks 116 and 117 were uncovered and contained oil, several birds landed in them and perished, and oral testimony revealed that birds had regularly died in the tanks at least as early as 1997.[16]

CITGO was indicted by a grand jury for multiple violations of the CAA and for "taking" migratory birds in violation of the MBTA.[17] These violations were addressed separately in a two-phase trial.[18] In the initial phase, a jury found CITGO guilty of operating tanks 116 and 117 as oil-water separators without the requisite emissions control technology, and fined CITGO $2,000,000.[19] The district court denied CITGO's motion to set aside the verdict, which alleged that the jury instruction misinterpreted the definition of oil-water separator in subpart QQQ.[20] In the bench phase of the trial, CITGO was found guilty on three of five counts of taking migratory birds, and fined $45,000.[21] The district court denied CITGO's motion to vacate the convictions.[22] CITGO appealed both denials.[23]

CLEAN AIR ACT CONVICTIONS

The Fifth Circuit Court of Appeals reversed both CAA convictions, finding that equalization tanks 116 and 117 lacked the necessary equipment to qualify as oil-water separators under subpart QQQ, and were therefore not required to have roofs.[24] The court rejected the government's functional definition of an oil-water separator as any equipment used to separate oil and water, instead interpreting the regulation more narrowly to apply only to certain tanks with specified ancillary equipment.[25] Thus, the district court's jury instruction suggesting that tanks 116 and 117, which lack any of the ancillary equipment mentioned in the regulation, could be oil-water separators subject to said regulation was harmful error and grounds for reversal.[26]

---

14 *Corpus Christi Convention & Visitors Bureau, Birding Manual*, VISIT CORPUS CHRISTI (2013), http://www.visitcorpuschristitx.org/see-and-do/birding-nature/download.aspx?id=503.

15 *Birds of Aransas National Wildlife Refuge*, U.S. FISH & WILDLIFE SERV. (April 2010) available at http://www.fws.gov/uploadedFiles/species-Birds_2010.pdf.

16 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 847, 848 (S.D. Tex. 2012) *rev'd,* 801 F.3d 477 (5th Cir. 2015).

17 *CITGO Petroleum Corp.*, 801 F.3d at 480.

18 *Id.*

19 *Id.* at 481.

20 United States v. CITGO Petroleum Corp., No. CRIM.A. C-06-563, 2011 WL 1155684, at *2 (S.D. Tex. Mar. 28, 2011) *rev'd*, 801 F.3d 477 (5th Cir. 2015).

21 *CITGO Petroleum Corp.*, 801 F.3d at 481 (the statutory maximum is $15,000 per violation).

22 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 847, 848 (S.D. Tex. 2012) *rev'd,* 801 F.3d 477 (5th Cir. 2015).

23 *CITGO Petroleum Corp.*, 801 F.3d at 481.

24 *Id.* at 488.

25 *Id.*

26 *Id.*

Migratory Bird Treaty Act Convictions

The court reversed all three convictions stemming from alleged violations of the MBTA, ruling that "taking" under the act is limited to deliberate acts done directly and intentionally to birds.[27]

In finding CITGO guilty of unlawful taking under the MBTA, the district court took sides on what was, at the time, a roughly even split between courts.[28] The central question was whether "taking" required an intentional killing, as in hunting or trapping, or a strict liability crime in which any act or omission that ultimately caused the death of migratory birds could be a source of liability. The alleged omission resulting in the death of migratory birds was the operation of tanks 116 and 117 without the roofs mandated both by the CAA and Texas law.[29] The district court pointed to Fifth Circuit precedent that MBTA violations were strict liability offenses, though the principle case it cited involved a hunter who exceeded his bag limit.[30] The court then looked to cases in the Second and Tenth Circuits in which liability had been imposed for analogous actives.[31] In *United States v. FMC Corp.*, the Second Circuit found a toxic chemical manufacturer guilty of taking under the MBTA after numerous birds perished in the nearby pond where FMC discharged its toxic wastewater.[32] In *United States v. Apollo Energies, Inc.*, the Tenth Circuit upheld taking liability for two oil company operators when migratory birds died as a result of nesting in certain oil field equipment.[33] Significantly, the U.S. Fish and Wildlife Service had embarked on a multi-year education campaign warning of the dangers of that equipment to migratory birds and suggesting protective measures, and only began prosecutions under MBTA after two years had passed.[34]

In *CITGO*, the district court found the underlying illegal activity of operating tanks 116 and 117 without roofs, coupled with evidence that CITGO had been made aware of the risk to birds at least ten years earlier, were sufficient to support its conclusion that CITGO proximately caused the deaths in violation of the MBTA.[35]

The Fifth Circuit disagreed, rejecting the Second and Tenth Circuits' approaches and siding instead with the Eighth and Ninth Circuits in finding that taking is limited to deliberate acts done intentionally and directly to migratory birds.[36] The court first looked at the common law definition of "take" espoused by Justice Scalia in his dissent in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, a case under the Endangered Species Act (ESA).[37] In *Babbitt*, Scalia defined take as "to reduce those

---

27 *CITGO Petroleum Corp.*, 801 F.3d at 489.
28 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 843 (S.D. Tex. 2012), *rev'd*, 801 F.3d 477 (5th Cir. 2015).
29 *Id.*
30 *Id.* at 844 (citing United States v. Morgan, 311 F.3d 611, 616 (5th Cir.2002)).
31 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 844 (S.D. Tex. 2012), *rev'd*, 801 F.3d 477 (5th Cir. 2015).
32 United States v. FMC Corp., 572 F.2d 902, 908 (2d Cir. 1978).
33 United States v. Apollo Energies, Inc., 611 F.3d 679, 682 (10th Cir. 2010).
34 *Id.*
35 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 848 (S.D. Tex. 2012), *rev'd*, 801 F.3d 477 (5th Cir. 2015).
36 *CITGO Petroleum Corp.*, 801 F.3d at 488, 489.
37 *Id.*

animals, by killing or capturing, to human control," which, according to the Fifth Circuit, could not encompass an accident, omission, or unintentional killing.[38] The Fifth Circuit then contrasted "take" in the MBTA with its definition in the ESA and Marine Mammal Protection Act.[39] In both of those acts, each adopted almost 60 years after the MBTA, Congress explicitly provided more expansive definitions of "take," including the terms "harass" and "harm," which have been read to include negligent and reckless acts.[40] In the absence of such terms in the MBTA, the court chose to adopt the narrower, common law definition. The Fifth Circuit likewise found no statutory support for the district court's theory that liability could arise from violations of other laws, and found the issue irrelevant since CITGO's CAA convictions were also overturned.[41]

The court was most concerned with the grand scope of liability that the government was advocating.[42] Taken to its extreme, imposing liability for accidents or omissions could have absurd consequences.[43] The court noted that hundreds of millions of birds die each year by simply flying into windows.[44] Communication towers, cars, and domestic cats are likewise responsible for significant loss of bird life.[45] According to the court, it was extremely unlikely that Congress contemplated the harsh penalties, including up to six months in prison and up to a $15,000 fine, for every occasion that a bird runs into a building, or every time a cat brings home a member of one of the almost 900 species of birds protected in the MBTA.[46]

Under this narrow definition of "take," CITGO's operation of tanks without roofs did not subject them to liability under the MBTA, and all convictions were reversed.[47]

CONCLUSION

The court found the government had overreached in convicting CITGO under the MBTA and the CAA. Having sided with the Eighth and Ninth Circuits in adopting a narrow definition of "take" under the MBTA, the Fifth Circuit joined an increasingly fractured legal landscape. Many within the circuit's jurisdiction applauded the decision. This was especially true in Texas, where the petroleum industry has an enormous presence. The decision likewise came as a relief to less carbon intensive sources of energy, as MBTA liability has been a source of uncertainty in Texas' burgeoning wind power sector.

The decision may face a rehearing before the Fifth Circuit *en banc*, and possibly before the Supreme Court. The split over MBTA liability between five circuits might encourage the Supreme Court to grant writ of certiorari and settle the issue. With the recent passing of Justice Scalia, the question could very well end up in front a court with

---

38 *Id.* (quoting Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687, 717 (1995)).
39 *CITGO Petroleum Corp.*, 801 F.3d at 488, 489.
40 16 U.S.C. § 1532(19) (2015); 16 U.S.C. § 1362(13) (2015).
41 *CITGO Petroleum Corp.*, 801 F.3d at 488, 493.
42 *Id.*
43 *Id.*
44 *Id.*
45 *Id.*
46 *Id.*
47 *Id.* at 488, 493.

a profoundly different ideological make-up, where the outcome would be far from certain.

David J. Klein is a member of the Lloyd Gosselink Rochelle & Townsend, P.C.'s Water and Districts Practice Groups in Austin, where he focuses on representing water utilities, municipalities, water districts, water authorities and landowners with their water supply, water quality, and water and sewer utility service interests. Mr. Klein earned his J.D. from The John Marshall Law School in Chicago, Illinois.

Colin Cox is a third-year student at The University of Texas School of Law and the Symposium Director of the Texas Environmental Law Journal.

State Casenote

Dos Republicas Coal P'ship v. Saucedo, 477 S.W.3d 828 (Tex. App.— Corpus Christi 2015, no pet.)

Dos Republicas Coal Partnership ("Dos Republicas") challenged the 293rd District Court of Maverick County's order denying Dos Republicas' petition for a writ of mandamus against Judge Saucedo, the Floodplain Administrator and County Judge of the Maverick County Commissioners Court ("the Judge").[1] Dos Republicas asserted that the trial court erred in denying its petition because: (1) the Judge violated its due process rights; (2) the Judge failed to perform a ministerial duty; (3) the Judge committed an abuse of discretion in denying its permit application.[2]

Background

In 1977, the Federal Emergency Management Agency (FEMA) designated areas of Maverick County as "special flood hazards."[3] Pursuant to section 16.318 of the Texas Water Code, the Maverick County Commissioner adopted a Flood Damage Prevention Ordinance ("Ordinance") for the express purpose of minimizing flood losses.[4] The Judge, as the Floodplain Administrator, reviews permits for development in the floodplain and determines whether to grant or deny the permit based on the provisions set forth in the Ordinance.[5]

---

1 Dos Republicas Coal P'ship v. Saucedo, 477 S.W.3d 828, 832 (Tex. App.—Corpus Christi 2015, no pet.)

2 *Id.*

3 *Id.* at 833; 61 Fed. Reg. 54,563 (Oct. 21, 1996); Maverick County, Tex., Flood Damage Prevention Ordinance art. 3, § B (Aug. 12, 1996).

4 *Dos Republicas*, 477 S.W.3d at 833.

5 *Id.* at 834.

In 2009, Dos Republicas sought to "renew, revise, and expand" an existing permit and receive a new floodplain development permit from the Judge.[6] In April 2014, the Judge issued an order denying Dos Republicas' application for a floodplain development permit.[7] Dos Republicas then sought to compel the Judge to issue the permit.[8] In October 2014, a trial court denied Dos Republicas' petition for a writ of mandamus.[9] This appeal followed.

DUE PROCESS

Dos Republicas contended that the Judge abused his discretion when he denied the permit application without a hearing.[10] The court rejected this, explaining that due process was not at issue because Dos Republicas' asserted harm–the denial of the permit and subsequent inability to commence operations–concern using the property for mining, which is not a constitutionally-protected vested right.[11]

THE JUDGE'S PERMIT APPLICATION DUTY: MINISTERIAL OR DISCRETIONARY?

Dos Republicas also argued that the Judge, as the Floodplain Administrator, had a purely ministerial duty to grant its permit application.[12] The court described "ministerial acts" as those that are performed with such precision and certainty as to leave nothing to the exercise of discretion or judgment.[13] Here the Floodplain Administrator is tasked with "[r]eview[ing] permit application[s] to determine whether proposed building site[s] . . . will be reasonably safe from flooding" and is also required to "review, approve, or deny all applications for development permits required by adoption of this ordinance."[14] Thus, because the Ordinance grants the Floodplain Administrator with decision-making powers, the Judge had more than a mere ministerial duty to grant the application.[15]

DID THE JUDGE CONSIDER IRRELEVANT FACTORS?

Dos Republicas contended, *inter alia*, that the Judge abused his discretion by considering factors that were irrelevant in the permit process.[16] Specifically, Dos Republicas pointed to the Judge's statements indicating his decision was based on: (1) the best interests of Maverick County; (2) his personal experiences; (3) coal mining regulations; and (4) floodwater quality concerns.[17]

---

6 *Id.*
7 *Id.* at 835.
8 *Id.*
9 *Id.*
10 *Id.* at 836.
11 *Id.*
12 *Id.* at 837.
13 *Id.* (quoting Ballantyne v. Champion Builders, Inc., 144 S.W.3d 417, 425 (Tex. 2004) (citing Comm'r of the Gen. Land Office v. Smith, 5 Tex. 471, 479 (1849)).
14 *Dos Republicas*, 477 S.W.3d at 837.
15 *Id.* at 838-39.
16 *Id.* at 843.
17 *Id.*

The court determined that the Judge indeed abused his discretion by considering floodwater quality concerns since the Ordinance's scope did not grant the Judge authority to regulate "floodwater quality."[18] Also, it was undisputed that Dos Republicas' received the necessary permits from the Texas Commission for Environmental Quality (TCEQ), including permits pertaining to stormwater and mine seepage discharge and the required Texas Pollutant Discharge Elimination System permit.[19] Therefore, the Judge acted outside his authority, and the Court sustained Dos Republicas' contention on this issue.[20]

Conclusion

The Court reversed the trial court's order denying Dos Republicas' petition for writ of mandamus on the ground that the trial court erred when it found that the Judge, as Floodplain Administrator, had not abused his discretion by considering an irrelevant factor in denying Dos Republicas' permit application.[21]

Howard Slobodin is the General Counsel and Secretary, Board of Directors, of the Trinity River Authority of Texas in Arlington. He received his B.A. from the University of Oregon in 1998 (cum laude) and his J.D. from the University of Texas School of Law in 2001 (with honors).

David Presley is a third-year student at The University of Texas School of Law and a staff member of the Texas Environmental Law Journal.

18 *Id.* at 847.
19 *Id.*
20 *Id.*
21 *Id.*

DENBURY GREEN PIPELINE-TEXAS V. TEXAS RICE LAND PARTNERS

INTRODUCTION

Briefs have been filed with the Texas Supreme Court regarding Denbury Green Pipeline-Texas v. Texas Rice Land Partners, a case that concerns a pipeline company (Denbury Green) seeking common-carrier designation for the purposes of eminent domain against a family limited partnership that operates a farm and ranch (Texas Land Partners).[1] The Ninth Court of Appeals in Beaumont remanded the case after reversing the trial court's grant of summary judgment as a matter of law in favor of Denbury Green's status as a common carrier.[2] Texas Land Partners seeks denial of review or affirmation of the court of appeal's decision so that the case can go to full trial on the merits.

BACKGROUND

The parties' dispute has come before the Supreme Court once before, in 2012 ("*Texas Rice I*").[3] The "sole issue" on the current appeal is whether Denbury Green meets the Supreme Court's test for common-carrier status, thereby earning the right to eminent domain.[4]

In *Texas Rice I*, the Texas Supreme Court adopted a new common-carrier test:

For a person intending to build a CO_2 pipeline to qualify as a common carrier under Section 111.002(6) [*ed note: of the Natural Resources code*], a reasonable probability must exist that the pipeline will at some point after construction serve the public by transporting gas for one or more customers who will either retain ownership of their gas or sell it to parties other than the carrier.[5]

On remand, the trial court granted Denbury Green's summary judgment motion, holding that Denbury Green met the common carrier designation test as a matter of

---

1 Denbury Green Pipeline-Tex., LLC v. Tex. Rice Land Partners, Ltd., No. 15-0225, 2015 WL 9501250.

2 Tex. Rice Land Partners, Ltd. v. Denbury Green Pipeline-Texas, LLC, 457 S.W.3d 115, (Tex. App.––Beaumont 2015, pet. granted).

3 *See* Texas Rice Land Partners v. Denbury Green Pipeline-Texas, 363 S.W.3d 192 (Tex. 2012).

4 *See generally* Brief for the Petitioner, Denbury Green Pipeline-Tex., LLC v. Tex. Rice Land Partners, Ltd., No. 15-0225 (Tex. Nov. 9, 2015), 2015 WL 9501250. Originally, Denbury Green sought an injunction that would allow it to access Texas Rice Land Partners' property in order to survey a route for a CO_2 pipeline. The pipeline was completed in 2010 and has been operational since then, but the issue of whether Denbury Green is a common carrier with the power to condemn the land has not been resolved. Denbury Green was able to take possession of the property and build the pipeline while the common-carrier question remained unsettled. Section 21.021(a) of the Texas Property Code "permits a condemnor. . .to take possession even if a property owner is challenging the condemnor's eminent-domain authority, so long as the condemnor posts sufficient bond."

5 Brief for the Respondent, Denbury Green Pipeline-Tex., LLC v. Tex. Rice Land Partners, Ltd., No. 15-0225 (Tex. Dec. 23, 2015), 2015 WL 9501250, at 12-13.

law.[6] The court of appeals reversed and remanded, holding instead that Denbury Green did not meet the *Texas Rice I* common carrier test.[7] Denbury Green filed a motion for rehearing with the appeals court, which was overruled.[8]

ARGUMENTS

Denbury Green's appeal to the Supreme Court critiques two primary aspects of the appeals court's holding. First, Denbury Green argues that the appeals court inappropriately raised the standard for what meets the *Texas Rice I* common carrier test through a holding that requires subjective "intent" at the time a pipeline is constructed, as opposed to an "objective reasonable-probability" test set forth by *Texas Rice I*.[9]

Denbury Green also claims that, under the appeals court's ruling, "a court may consider only transportation contracts that could have been adduced at the time the pipeline owner intends to build the pipeline" – that is to say, that a court may not consider contracts that did not exist at the time of intent to build a pipeline but may have existed by the time the common-carrier question was posed.[10] Denbury Green argues that, since many contracts are entered into after construction begins (as construction can occur both before and while the pipeline's eminent-domain authority is challenged), ignoring such contracts for common-carrier designation purposes would hinder pipeline development.[11]

Texas Land Partners, for its part, disagrees with Denbury Green's contention that the court of appeals applied a subjective test to determine how Denbury Green intended to use the pipeline; rather, Texas Land Partners argues, the court used objective evidence.[12] Indeed, Texas Land Partners claims that the court of appeals disregarded subjective evidence from Denbury Green concerning its intent with regard to the pipeline.[13] (More broadly, Texas Land Partners is arguing that the pipeline is question is a private line and therefore not a common carrier, arguing that Denbury Green stated its intention to "fully utilize[e]" the pipeline in question.[14]) Texas Land Partners believes that the court of appeals did not deviate from the Supreme Court's "reasonable probability" test, but merely concluded that reasonable minds could differ as to whether the pipeline in question would be used for public use.[15]

If Denbury Green and Texas Land Partners' disagreement boils down to whether the appeals court was using an objective or subjective test for common carrier status, Texas

---

6 Brief for the Petitioner, *supra* note 4, at xi.

7 *Id.*

8 *Id.*

9 *Id.* at 2. Denbury Green argues that this new subjective test "could stunt economic growth in Texas and incentivize pipeline companies to invest in other states" by making it harder to "dispose" of the common-carrier test at summary judgment.

10 *Id.* at 3.

11 *Id.*

12 Brief for the Respondent, *supra* note 5, at 15-16.

13 *Id.* at 22.

14 *Id.* at 14. Texas Land Partners also quotes this language from *Texas Rice I*: "To qualify as a common carrier with the power of eminent domain, the pipeline must serve the public; it cannot be built only for the builder's exclusive use." Texas Rice Land Partners v. Denbury Green Pipeline-Texas, 363 S.W.3d at 200 (Tex. 2012).

15 Brief for the Respondent, *supra* note 5, at 21-22.

Land Partners argues that "the fact that intent is relevant does not make the reasonable-probability test subjective. . ..[i]ntent is made apparent by objective manifestations."[16] Conceding that summary judgment is appropriate when objective intent is decisively clear, Texas Land Partners argues that summary judgment is inappropriate when such manifestations do not point to a clear answer.[17]

With regard to the issue of the timing in which contracts are entered into, Texas Land Partners disagrees that, in this situation, contracts that were entered into after a pipeline was constructed can be used to establish common carrier status for the purposes of granting summary judgment. Texas Land Partners argues that a company's common carrier status must predate construction and actual service to the public – that is, that a company must be a common carrier at the time that it takes private property, and that nothing authorizes a company to qualify for common carrier status after taking private property.[18] Otherwise, such a dynamic – allowing companies to qualify for common carrier status years after taking property – would "invite[ ] abuse of the possession pending-litigation provision of the eminent domain statutes."[19]

Texas Land Partners argues that "the focus of the reasonable probability test is the point at which the company intends to build the pipeline and initiates condemnation proceedings."[20] While a post-construction contract can be relevant evidence, Texas Land Partners argues that, in this situation, the effect of Denbury Green's statements prior to construction (that it planned to fully utilize the entire pipeline) mean that post-construction contracts cannot settle the objective reasonability test as a matter of law.[21] In short, Texas Land Partners argues that, while post-construction contracts may be relevant evidence for the reasonable probability test, such a contract cannot satisfy the test if a company had stated prior to construction that it planned to "fully utilize" the pipeline for its private use.[22]

Though the questions of subjective versus objective intent, and the timing of when contracts are entered into, are the primary arguments raised in the parties' briefs, additional issues have been raised. For instance, Denbury Green claims the court of appeals incorrectly increased the degree of "public use" required for common-carrier status. Denbury Green argues that, in *Texas Rice I*, the Supreme Court stated that "any amount" of public use would satisfy the test (provided that a pipeline was not exclusively used by the pipeline company or its affiliates), but that the court of appeals applied a "substantial degree" standard of public use.[23] Denbury Green argues this "substantial degree" require-

16 *Id.* at 22.
17 *Id.* at 23.
18 *Id.* at 25-26.
19 *Id.* at 26. Similarly, Texas Land Partners notes that the Supreme Court previously rejected an argument that merely registering with the Railroad Commission as a common-carrier would be enough to earn common-carrier status, as such a position might help companies (in Texas Land Partners' words) "game the system and abuse the power of eminent domain." *Id.* at 29.
20 *Id.* at 25.
21 *Id.*
22 *Id.*
23 Brief for the Petitioner, *supra* note 4, at 5.

ment "raises the bar for common-carrier status and discourages pipeline development."[24] In contrast, Texas Land Partners argues that the Supreme Court requires a substantial public use.[25]

Additionally, Denbury Green is asking the Supreme Court to determine whether carbon capture and sequestration is, as a matter of law, a "substantial public use" for meeting the common-carrier test.[26] Texas Land Partners contends that private property can only be taken after the Legislature has authorized the taking for a particular public purpose that qualifies as a public use, and that since the Legislature has not authorized taking private property for carbon sequestration, it cannot be a factor enabling the power of eminent domain.[27]

Denbury Green is also asking the Supreme Court to rule on whether pipeline use by a pipeline owner or an affiliate for the benefit of a third party constitutes a public use of the pipeline.[28] Texas Land Partners believes the Court should reject the opportunity to consider the reasonable probability test in light of a beneficial use theory.[29]

Furthermore, Denbury Green is asking the Supreme Court to clarify whether section 2.105 of the Texas Business Organizations Code is an independent source of eminent domain authority for common carriers.[30] Texas Land Partners argues that the Texas Business Organizations Code is not an independent source of eminent domain power, and that it does not provide a definition of "common-carrier" that is different from the definition used by the Texas Natural Resources Code (which was used by the Court in determining its *Texas Rice I* decision).[31] Texas Land Partners contends that the language of the Texas Business Organizations Code precludes corporations from exercising powers that would be inconsistent with limitations imposed by other laws of the state – and, as such, that a pipeline company cannot rely on the Texas Business Organization Code for more expansive powers of eminent domain than would be allowed by the Texas Natural Resources Code.[32]

Carlos Romo is a Senior Associate at Baker Botts L.L.P. The focus of his practice is environmental, air quality, alternative energy, waste and remediation, and water quality.

Tyler Allard is a second-year student at The University of Texas School of Law and a Staff Member of the TEXAS ENVIRONMENTAL LAW JOURNAL.

---

24 *Id.* at 6.
25 Brief for the Respondent, *supra* note 5, at 27.
26 Brief for the Petitioner, *supra* note 4, at 11.
27 Brief for the Respondent, *supra* note 5, at 28.
28 Brief for the Petitioner, *supra* note 4, at 12.
29 Brief for the Respondent, *supra* note 5, at 38.
30 Brief for the Petitioner, *supra* note 4, at 13.
31 Brief for the Respondent, *supra* note 5, at 39.
32 *Id.* at 40.

ARRANGER LIABILITY UNDER CERCLA

INTRODUCTION

This Development discusses the current state of arranger liability for waste brokers under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) by reviewing *MEMC Pasadena, Inv. v. Goodgames Industrial Solutions*, a recent decision from a district court in the Fifth Circuit.[1] In that case, a waste broker was held liable as an arranger under CERCLA. This article also provides a brief overview of arranger liability in other circuits.

BACKGROUND

CERCLA's section 107(a) imposes liability for the cost of cleaning up environmental contamination by hazardous substances on responsible parties, including those who "arranged" the disposal of the hazardous substances.[2] The purpose of arranger liability is to prevent an entity from circumventing CERCLA liability by contracting with another party its responsibilities of disposing the entity's waste.[3]

The landmark U.S. Supreme Court decision *Burlington Northern & Santa Fe Railway Company v. United States* articulates guidelines as to the definition of "arrange."[4] The Court held that a party must take "intentional steps" to dispose of a hazardous substance to qualify as an arranger.[5] The "mere knowledge" of spills and leaks is insufficient to establish that a party "arranged for" the disposal of a hazardous substance under CERCLA.[6]

MEMC PASADENA, INV. V. GOODGAMES INDUSTRIAL SOLUTIONS

In *MEMC Pasadena, Inv. v. Goodgames Industrial Solutions*, a waste generator successfully held an environmental waste broker and servicer liable for CERCLA contribution in the Southern District of Texas.[7] MEMC contracted with Goodgames Industrial Solutions (GIS) to dispose of sodium silicate waste, which was generated by the manufacturing process at the MEMC facility.[8] At the suggestion of GIS, MEMC approved the

---

1 MEMC Pasadena, Inc. v. Goodgames Indus. Sols., LLC, No. 4:13-CV-599, 2015 WL 6473385 (S.D. Tex., Oct. 27, 2015).

2 42 U.S.C. § 9607(a)(3) (2015).

3 *See* Team Enters., LLC v. W. Inv. Real Estate Trust, 647 F.3d 901, 907 (9th Cir. 2011). *See also* John DiChello, *Mitigating the Risk of Arranger Liability Under CERCLA*, 15 DAILY ENVTL. REPORT 51 (March 17, 2015), https://www.blankrome.com/index.cfm?contentID=37&itemID=3547.

4 Burlington N. & Santa Fe Ry. Co. v. United States, 556 U.S. 599, 600 (2009).

5 *Id.* at 611.

6 *Id.* at 613.

7 MEMC Pasadena, Inc. v. Goodgames Indus. Sols., LLC, No. 4:13-CV-599, 2015 WL 6473385 (S.D. Tex., Oct. 27, 2015).

8 *Id.*

U.S. Oil site as its disposal site.[9] U.S. Oil always dealt directly with GIS, and GIS, in turn, billed MEMC for all transportation and disposal costs with a 10% markup on the disposal price.[10] In 2012, the EPA informed GIS that it believed that GIS was liable as an arranger under CERCLA for waste at the U.S. Oil site.[11] MEMC, who was also facing CERCLA liability, sued GIS to seek contribution under section 113 of CERCLA.[12]

The court held that GIS fell within the meaning of CERCLA "arranger."[13] The court held that CERCLA arranger liability can attach whether or not the arranger owns or possesses the hazardous substances, based on the statute's primary interest in shifting the environmental clean-up costs from taxpayers to parties who benefited from the disposal.[14] This holding conforms with the Ninth Circuit interpretation in *Pakootas v. Teck Cominco Metals, Ltd.*,[15] but differs from that of the First Circuit in *Am. Cyanamid Co. v. Capuano*.[16] The court also held that CERCLA arranger liability can attach whether or not the arranger selected the disposal site.[17] This proposition is supported by the fact that there is an explicit statutory requirement that a "transporter" select the site of disposal, whereas the definition of an "arranger" has no such requirement.[18]

The court noted that the U.S. Supreme Court's "intentional steps" test, established in *Burlington Northern*, is the controlling law for determining arranger liability.[19] Using the "intentional steps" test, the court found that the waste at issue was not a useful product and there was sufficient evidence that the broker intended for the waste's disposal.[20] Therefore, per the ordinary meaning of "arrange," the broker planned or prepared for the waste's disposal and was liable as an "arranger," despite lacking the authority to make the ultimate decision about disposal.[21] The court also entered summary judgment for the generator under the Texas Solid Waste Disposal Act (TSWDA) because TSWDA liability follows CERCLA liability.[22]

OTHER DEVELOPMENTS IN ARRANGER LIABILITY UNDER CERCLA

THE FIRST CIRCUIT

In *United States v. General Electric*, the First Circuit Court of Appeals affirmed the judgment holding General Electric (GE) liable as an arranger.[23] GE purposefully entered into an arrangement with Fletcher, a paint manufacturer, with the desire to be rid of

---

9 *Id.* at *4-5.
10 *Id.* at *5-6.
11 *Id.* at *7.
12 *Id.* at *8.
13 *Id.* at *22.
14 *Id.* at *17-18
15 Pakootas v. Teck Cominco Metals, Ltd., 646 F.3d 1214 (9th Cir. 2011).
16 Am. Cyanamid Co. v. Capuano, 381 F.3d 6 (1st Cir. 2004).
17 *MEMC Pasadena, Inc.* 2015 WL 6473385 at *20-21.
18 *Id.* at *19; *see also*, 42 U.S.C. § 9607(a)(3)-(4).
19 *MEMC Pasadena, Inc.* 2015 WL 6473385 at *20-21 (citing Vine Street LLC v. Borg Warner Corp., 776 F.3d 312, 317 (5th Cir. 2015)).
20 *MEMC Pasadena, Inc.* 2015 6473385 at *20-21.
21 *Id.* at *21-22.
22 *Id.* at *23.
23 United States v. Gen. Elec. Co., 670 F.3d 377, 394 (1st Cir. 2012).

scrap Pryanol.[24] Fletcher purchased scrap Pyranol from GE at bargain prices to use as a plasticizer additive for his paint.[25] After approximately 10 years, Fletcher began missing payments, but GE nonetheless continued to deliver shipments of Pyranol.[26] Approximately 20 years later, the EPA found hundreds of drums of scrap Pyranol on Fletcher's property and pursued to recover cleanup costs from GE, under the inference that GE "arranged for disposal" of a hazardous substance under section 107(a)(3) of CERCLA.[27]

The First Circuit Court of Appeals concluded that GE viewed the scrap Pyranol as a waste, and not as a useful product.[28] For example, GE stored the scrap Pyranol in drums labeled as "scrap" and "waste" in salvage areas, and pursued arrangements to reduce its stockpile of scrap Pyranol.[29] Additionally, there was no evidence that a market for scrap Pyranol existed, and the evidence showed that "any profit derived from selling scrap Pyranol to Fletcher was subordinate and incidental to the immediate benefit of being rid of an overstock of unusable chemicals."[30]

The First Circuit Court of Appeals found that GE controlled the amount and quality of the scrap Pyranol delivered to Fletcher.[31] Despite the fact that Fletcher requested GE to pick up the contaminated and unusable scrap Pyranol, GE continued to make deliveries even after Fletcher missed payments.[32] GE thereafter wrote off Fletcher's debt and left Fletcher with the burden of disposing of the scrap Pyranol.[33] The court stated that GE took the "conscious and intentional step of leaving Fletcher to dispose of the materials."[34] Therefore, the First Circuit Court of Appeals concluded that GE was liable for arranging the disposal of a hazardous substance under CERCLA.

The Second Circuit

In *DVL Inc. v. Niagara Mohawk Power Corporation*, the Second Circuit Court of Appeals affirmed the district court's denial of plaintiff, DVL Inc.'s, motion for partial summary judgment on its arranger liability claim, and affirmed the grant of summary judgment on that claim in favor of defendants, Niagara Mohawk Power Corp. and General Electric.[35] The court ruled that DVL failed to offer sufficient evidence that GE and Niagara Mohawk arranged for the disposal of the contamination found on DVL's site.[36] DVL only offered evidence that GE used PCB's, the contamination found at the DVL site, but no evidence to show that GE disposed or intended to dispose of the PCB's waste at the DVL site.[37] Similarly, DVL only offered evidence that Niagara Mohawk provided electrical service near the DVL site using transformers that contained PCBs, but DVL

24 *Id.* at 380.
25 *Id.*
26 *Id.* at 381.
27 *Id.*
28 *Id.* at 384.
29 *Id.* at 385.
30 *Id.* at 386.
31 *Id.* at 380.
32 *Id.*
33 *Id.* at 381.
34 *Id.* at 391.
35 DVL, Inc. v. Niagara Mohawk Power Corp., 490 Fed.Appx. 378, 384 (2d Cir. 2012).
36 *Id.* at 383.
37 *Id.*

did not present any evidence that transformers found at the DVL site originated from Niagara Mohawk.[38] Absent any evidence that GE or Niagara Mohawk took intentional steps to discard PCBs at the DVL site, those parties could not be held liable as arrangers under section 107(a)(3) of CERCLA.[39]

THE THIRD CIRCUIT

In a fairly clear-cut case of *Litgo New Jersey Inc. v. Commissioner New Jersey Department of Environmental Protection*, the Third Circuit Court of Appeals affirmed the district court's ruling that the U.S. was liable for cleanup costs under CERCLA because it arranged for disposal of hazardous substances at the Litgo site.[40] The district court rejected the U.S. argument that the government should not be liable because it arranged for storage, as opposed to disposal of the waste.[41] The district court distinguished the storage's purpose being of temporary use, while the evidence suggested that the U.S. intended to permanently get rid, i.e. dispose, of what they believed to be waste products.[42]

THE FIFTH CIRCUIT

The Fifth Circuit Court of Appeals revisited the scope of arranger liability in *Vine St. LLC v. Borg Warner Corporation*.[43] In that case, Norge designed, installed, and sold dry cleaning equipment, including dry cleaning machines and a drainage system that included water separators that released wastewater into the sewer and recycled perchloroethylene ("perc") for future use.[44] Norge modified the design of the water separators to minimize the loss of perc, an expensive chemical, but the perc continued to escape from the sewer system impacting soil and groundwater.[45] Vine Street LLC sought to recover a portion of the cleanup costs under section 107(a)(3) of CERCLA on an arranger liability theory.[46]

The Fifth Circuit reversed the district court's ruling and concluded that Norge did not constitute an "arranger" because it did not intend to discharge perc.[47] The court reasoned that while Norge knew that perc would escape the water separators and enter the sewer system and that a discharge was inevitable, Norge intended for the water separators to recycle perc for future use, not to dispose of it.[48] Additionally, the court found that the relationship between Norge and College Cleaners "centered around the successful operation of a dry cleaning business – not around the disposal of waste."[49]

---

38 *Id.*
39 DiChello, *supra* note 3.
40 Litgo New Jersey Inc. v. Comm'r New Jersey Dep't of Envtl. Prot., 725 F.3d 369, 390 (3d Cir. 2013).
41 *Id.* at 380.
42 *Id.*
43 Vine Street LLC v. Borg Warner Corp., 776 F.3d 312, 313 (5th Cir. 2015). *See also* DiChello, *supra* note 3.
44 *Vine Street*, 776 F.3d at 314.
45 *Id.* at 315.
46 *Id.*
47 *Id.* at 320.
48 *Id.* at 314.
49 *Id.* at 319.

Therefore, the court ruled that Norge lacked the necessary intent to qualify as an arranger under CERCLA.[50]

Ali Abazari is a partner with Jackson Walker L.L.P. who specializes in industrial waste management, strategic environmental planning, environmental auditing, Superfund, underground storage tanks, underground injection disposal wells, transactional issues involving the sale and acquisition of contaminated properties, water utilities, and water quality. He previously served as a regulatory specialist at URS Corporation and as an attorney in the Litigation Division of the Texas Commission on Environmental Quality.

Manish Gianchandani is a second-year student at The University of Texas School of Law and a staff member of the Texas Environmental Law Journal.

50 *Id.* at 320.

COMPROMISE IN THE CONSOLIDATED APPROPRIATIONS ACT: EXTENDING RENEWABLE ENERGY TAX CREDITS AND THE LIFTING OF THE BAN ON THE EXPORT OF CRUDE OIL

INTRODUCTION

On December 18, 2015, President Obama signed the Consolidated Appropriations Act of 2016 ("Act"), an omnibus bill that both extended the federal tax credits for solar and wind facilities and lifted the decades-long ban on export of crude oil produced in the United States.[1] The Act extended the expiration date for the renewable electricity production tax credit (PTC) to December 31, 2019, for wind facilities commencing construction in 2016.[2] The Act further provides a phase-down approach for wind projects with construction beginning after December 31, 2016.[3] Similarly, the Act extended the investment tax credit (ITC) for solar projects.[4] Wind and solar interests believe that the extended tax credits, along with the Clean Power Plan, will lead to more wind and solar development.[5] As a compromise between Republicans and Democrats, Congress also lifted the 40-year ban on exports of crude oil produced in the United States.[6] Domestic crude oil producers have already taken advantage of the lifting of the export ban.[7]

BACKGROUND

The PTC was originally enacted as part of the Energy Policy Act of 1992 but has since been renewed and expanded many times.[8] The PTC is "an inflation-adjusted per-

---

1 Richard Allan, *Congress's Budget Compromise Lifts Crude Oil Export Ban and Extends Wind and Solar Tax Credits*, MARTEN LAW (Jan. 21, 2016), http://www.martenlaw.com/newsletter/20160121-congress-budget-compromise.

2 Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, § 301(a)(1)–(2), 129 Stat. 2242, 3038 (2015) (codified as amended at 26 U.S.C. § 45(d)).

3 *Id.* § 301(a)(2).

4 *Id.* § 303(a)–(b) (codified as amended at 26 U.S.C. § 48(a)).

5 *See* Ken Silverstein, *Tax Credits for Wind and Solar Will Deliver but Will Definitely Be Phased Out*, FORBES, Jan. 7, 2016, http://www.forbes.com/sites/kensilverstein/2016/01/07/tax-credits-for-wind-and-solar-will-deliver-but-will-definitely-be-phased-out/#610ef1fc1554 (noting that wind and solar "developers know that they will receive favorable treatment while the utilities will be required to buy such power to comply with the regulations that will require a 32 percent cut in carbon dioxide emissions by 2032"). However, the future of the Clean Power Plan has been called into question after the Supreme Court temporarily blocked the EPA's rule to regulate carbon dioxide emissions from coal-fired plants. Adam Liptak & Coral Davenport, *Supreme Court Deals Blow to Obama's Efforts to Regulate Coal Emissions*, N.Y. TIMES, Feb. 9, 2016, http://www.nytimes.com/2016/02/10/us/politics/supreme-court-blocks-obama-epa-coal-emissions-regulations.html?_r=0.

6 *See* Allan, *supra* note 1 (recognizing that lifting the ban on the export of crude oil was "a goal of Republican leadership").

7 *Id.*

8 *Renewable Electricity Production Tax Credit (PTC)*, ENERGY.GOV, http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc (last visited Feb. 8, 2016).

kilowatt-hour (kWh) tax credit for electricity generated by qualified energy resources and sold by the taxpayer to an unrelated person during the taxable year."[9] Section 1102 of the American Recovery and Reinvestment Act of 2009 enabled developers to choose a 30% ITC instead of the PTC for wind and other renewable energy facilities.[10] Then, the American Taxpayer Relief Act of 2012 gave a one-year extension of the PTC and ITC for wind facilities for which construction began before January 1, 2014 for another year.[11] In December of 2014, Congress once again granted extensions of the PTC and ITC for wind facilities, though this only extended the deadline to begin construction to the end of 2014.[12] Because of the uncertainty regarding whether beginning construction of a wind facility would vest the right to federal tax credits, investment in the wind industry would "slow[ ] to a halt during the year leading up to . . . [the] expiration dates [of the credits]."[13]

While solar facilities were previously eligible for the PTC, the eligibility ended with facilities placed in service in 2005.[14] However, the Energy Policy Act of 2005 made solar facilities eligible for a 30% ITC.[15] The Emergency Economic Stabilization Act of 2008 then extended the ITC to include solar facilities placed in service before January 1, 2017, and provided that solar facilities placed in service after that date would be eligible for a 10% ITC.[16]

These tax credits for wind and solar facilities are relatively new compared to the ban on the export of crude oil produced in the United States, which was implemented in 1975 as part of the Energy Policy and Conservation Act (EPCA).[17] The EPCA was enacted in response to the Arab oil embargo in 1973 to "increase domestic energy supplies and availability; to restrain energy demand; [and] to prepare for energy emergencies," and the banning of American crude oil exports was one way to meet this goal.[18] While the ban on the export of U.S.-produced crude oil has included exceptions, the ban remained largely intact until it was lifted by the Act in 2015.[19]

---

9 *Id.*

10 Allan, *supra* note 1 (citing 26 U.S.C. § 48(a)(5)).

11 *Id.*

12 *Id.*

13 *Id.* (quoting *Federal Wind Energy Policy*, AMERICAN WIND ENERGY ASS'N, http://www.awea.org/Advocacy/Content.aspx?ItemNumber=791 (last visited Feb. 8, 2016)).

14 *Id.* (citing 26 U.S.C. § 45(d)(4)(a)).

15 *Id.* (citing Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594).

16 *Id.* (citing Emergency Economic Stability Act of 2008, Pub. L. No. 110-343, § 103(a), 122 Stat. 3765, 3811 (2008)).

17 *See* Sam Andre, Note, *Striking Before the Well Goes Dry: Exploring if and How the United States Ban on Crude Oil Exports Should Be Lifted to Exploit the American Oil Boom*, 100 MINN. L. REV. 763, 763 (2015) (explaining that when the EPCA was passed, "the 1973Arab oil embargo's painful images of high energy prices and seemingly endless gas station lines [were] still lingering in the minds of the U.S. population").

18 Energy Policy and Conservation Act of 1975, Pub. L. No. 94–163, 89 Stat. 871, 871 (1975); Andre, *supra* note 17, at 763.

19 Allan, *supra* note 1.

Overview of the Act

For wind facilities, Title III of Division P of the Act reinstates the PTC and the ITC, applying retroactively to January 1, 2015.[20] Developers of wind facilities on which construction begins in 2016 (or began in 2015) can chose either the PTC or the 30% ITC.[21] Both the PTC and the ITC are reduced each year for facilities for which construction begins in 2017 through 2019.[22] The PTC is reduced by 20% for facilities with construction beginning in 2017, 40% for facilities with construction beginning in 2018, and 60% for facilities with construction beginning in 2019.[23] The ITC for wind facilities is reduced on the same scale.[24]

The Act also extended eligibility for the 30% ITC to solar facilities for which construction begins before January 1, 2020.[25] The Act includes reductions in the ITC for solar facilities with construction beginning in 2020 and 2021, with the energy percentage reduced to 26% and 22%, respectively.[26] Additionally, if construction on a solar facility begins before January 1, 2022, but the facility "is not placed in service before January 1, 2024, the energy percentage . . . shall be equal to 10 percent."[27] This amendment of the Internal Revenue Code took effect on the date of the enactment of the Act.[28]

Going Forward

The Act's compromise appears to be a "win" for both parties.[29] Renewable energy interests are excited about the growth of the industry that will be spurred by the PTC and ITC extensions.[30] Additionally, while some environmentalists are concerned about the lifting of the export ban on domestically-produced crude oil, others believe that this

---

20 Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, §§ 301–02, 129 Stat. 2242, 3038–39 (2015).

21 *Id.*

22 *Id.*

23 *Id.* § 301(a)(2).

24 *Id.* § 302(b).

25 *Id.* § 303(a)-(b).

26 *Id.* § 303(b).

27 *Id.*

28 *Id.* § 303(d). This is different than the amendments in sections 301 and 302, which retroactively took effect January 1, 2015, likely to bring in the facilities that would have otherwise been left without access to the PTC and ITC due to the gap in legislation. *See id.* §§ 301-02 (stating that the amendments made in those sections took effect on January 1, 2015).

29 Stephen Lacey, *Congress Passes Tax Credits for Solar and Wind: 'Sausage-Making at Its Most Intense'*, Greentech Media (Dec. 18, 2015), http://www.greentechmedia.com/articles/read/breaking-house-passes-1.1-trillion-spending-bill-with-renewable-energy-tax.

30 *See id.* (explaining that the ITC extension could spur almost 100 cumulative gigawatts of solar installations by 2020 and that "the PTC extension would support tens of gigawatts of new wind projects through 2020"). Solar and wind are not the only renewable energy sources that benefit from the extension of tax credits; Section 187 of the Act extended the PTC for other facilities that produce energy from various renewable resources, such as closed-loop and open-loop biomass facilities, geothermal energy facilities, landfill gas facilities, and more. Consolidated Appropriations Act of 2016, Pub. L. No. 114-113, § 187, 129 Stat. 2242, 3074 (2015).

is a "net positive" for the climate, at least over the next few years.[31] One prediction suggests that "[t]he net impact of the exports-for-renewables-credits trade . . . is to reduce carbon dioxide emissions by at least 20-40 million metric tons annual[ly] over the 2016-2020 period."[32] Others assert that "lifting the ban will have negligible effects on emissions and commodities markets in what amounts to a zero-sum game."[33]

From the oil and gas side, producers are already taking advantage of the lifting of the crude oil export ban.[34] Additionally, the industry has identified potentially positive outcomes, such as an increased market for light, sweet crude oil from shale.[35] It has been suggested that the lifting of the ban will encourage shale-oil producers to pump more oil.[36] However, not everyone shares in the enthusiasm regarding the lifting of the ban; some argue that the lifting of the ban may cause the United States to become more dependent on foreign oil.[37]

Joshua D. Katz is an attorney with Bickerstaff Heath Delgado Acosta L.L.P. in Austin. Mr. Katz practices environmental law, administrative law, water law, electric utility regulation, and related litigation. He received his law degree from the University of Houston Law Center.

Lisa Garrett is a second-year student at The University of Texas School of Law and a Staff Member of the TEXAS ENVIRONMENTAL LAW JOURNAL.

---

31 *See* Varuan Sivaram & Michael Levi, *Budget Deal Oil-for-Renewables Trade Would Substantially Reduce Carbon Emissions*, COUNCIL ON FOREIGN REL.: ENERGY, SECURITY, AND CLIMATE (Dec. 18, 2015), http://blogs.cfr.org/levi/2015/12/18/budget-deal-oil-for-renewables-trade-would-substantially-reduce-carbon-emissions/ (determining that "[e]xtension of the tax credits will do far more to reduce carbon dioxide emissions over the next five years than lifting the export ban will do to increase them").

32 *Id.*

33 Chris Nelder & Mark Silberg, *Congress Extends the Renewable Investment Tax Credit: What Now*, GREENBIZ (Dec. 28, 2015, 12:30 AM), https://www.greenbiz.com/article/congress-extends-renewable-investment-tax-credit-what-now.

34 *See* Allan, *supra* note 1 (recognizing that several shipments of crude oil have left Texas ports in the weeks since President Obama signed the Consolidated Appropriations Act).

35 *America Lifts Its Ban on Oil Exports*, THE ECONOMIST (Dec. 18, 2015), http://www.economist.com/news/finance-economics/21684531-light-sweet-compromise-puts-end-crude-market-distortions-america-lifts. Additional possible positive outcomes include giving refineries outside the U.S. access to a wider variety of oil (and therefore enabling such refineries to operate more efficiently) and making oil trading more efficient by making West Texas Intermediate "a global benchmark for light, high-grade crudes to rival Brent, an international benchmark that is based on a mix of heavier crudes." *Id.*

36 *See id.* (suggesting that shale-oil producers will pump more oil when oil prices recover from the 2015 slump).

37 Jack Luellen, *Lifting the Ban Could Make US More Reliant on Foreign Oil*, LAW360 (Oct. 26, 2015, 11:10 AM), http://www.law360.com/articles/714260/lifting-the-ban-could-make-us-more-reliant-on-foreign-oil.

UNITED STATES V. CITGO PETROLEUM CORPORATION, 801 F.3D 477, 494 (5TH CIR. 2015)

INTRODUCTION

On September 9, 2015, the United States Court of Appeals for the Fifth Circuit ruled that the ban on "takings" under the Migratory Bird Treaty Act (MBTA) applies only to intentional acts that directly kill migratory birds.[1] In the same case, it further ruled that Subpart QQQ of the Clean Air Act (CAA) regulations only apply to "equipment conventionally, not merely functionally, known as oil-water separators, along with specifically described ancillary equipment."[2] The court reversed the district court's criminal convictions, and remanded the case with instructions to enter a judgment of acquittal on all counts.[3]

BACKGROUND

CITGO owns two large petroleum refining facilities in Corpus Christi, each subject to a dizzying array of environmental regulations at both the federal and state level. The combined plants cover roughly 890 acres and process an average of 157,000 barrels of crude oil per day, generating a significant amount of wastewater in the process.[4] At issue here is CITGO's use of two large equalization tanks, tanks 116 and 117, each 30 feet tall and 240 feet in diameter, as part of its wastewater treatment.[5] At the facility, drains collect wastewater and funnel it to two enhanced oil-water separators, where a majority of the separable oil is recovered.[6] From the separators, the water flows to the equalization tanks, and then into secondary treatment systems, including air flotation, biological treatment, and clarification.[7] The equalization tanks serve as a buffer between the oil-water separators and secondary treatment, effectively shielding those more sensitive processes from being overwhelmed by the unpredictable discharges that are commonplace in the industry.[8] To minimize emissions of volatile organic compounds in the wastewater treatment process, subpart QQQ requires oil-water separators to have roofs.[9] By contrast, equalization tanks are not required to have roofs.[10]

In early 2002, inspectors from the Texas Commission on Environmental Quality (TCEQ) discovered 130,000 barrels of oil in the equalization tanks, leading them to

---

1 United States v. CITGO Petroleum Corp., 801 F.3d 477, 494 (5th Cir. 2015).
2 *Id.*
3 *Id.*
4 *About Us*, CITGO Refining, http://www.citgorefining.com/corpus-christi/about-us (last visited Mar. 9, 2016).
5 *CITGO Petroleum Corp.*, 801 F.3d at 480.
6 *Id.*
7 *Id.*
8 *Id.*
9 *Id.* 40 C.F.R. § 692-4 (2015).
10 *Id.*

surmise that the tanks were actually being used as oil-water separators.[11] While the designated oil-water separator tanks had the statutorily-mandated roofs, the equalization tanks were not covered, allowing the release of volatile organic compounds into the air.[12] TCEQ thus cited CITGO for violating the CAA by operating tanks 116 and 117 as oil-separation tanks without the required roofs.[13]

In addition to alleged violation of the CAA, the open tanks posed a serious hazard to wildlife. Corpus Christi sits in the migration corridor for over two hundred bird species, and has been named the "birdiest city in America" by the National Audubon Society.[14] Indeed, the nearby Aransas National Wildlife Refuge is a world-class birding destination home to a stunning array of migratory birds.[15] During the time tanks 116 and 117 were uncovered and contained oil, several birds landed in them and perished, and oral testimony revealed that birds had regularly died in the tanks at least as early as 1997.[16]

CITGO was indicted by a grand jury for multiple violations of the CAA and for "taking" migratory birds in violation of the MBTA.[17] These violations were addressed separately in a two-phase trial.[18] In the initial phase, a jury found CITGO guilty of operating tanks 116 and 117 as oil-water separators without the requisite emissions control technology, and fined CITGO $2,000,000.[19] The district court denied CITGO's motion to set aside the verdict, which alleged that the jury instruction misinterpreted the definition of oil-water separator in subpart QQQ.[20] In the bench phase of the trial, CITGO was found guilty on three of five counts of taking migratory birds, and fined $45,000.[21] The district court denied CITGO's motion to vacate the convictions.[22] CITGO appealed both denials.[23]

CLEAN AIR ACT CONVICTIONS

The Fifth Circuit Court of Appeals reversed both CAA convictions, finding that equalization tanks 116 and 117 lacked the necessary equipment to qualify as oil-water separators under subpart QQQ, and were therefore not required to have roofs.[24] The

---

11 *Id.*
12 *Id.*
13 *Id.*
14 *Corpus Christi Convention & Visitors Bureau, Birding Manual*, VISIT CORPUS CHRISTI (2013), http://www.visitcorpuschristitx.org/see-and-do/birding-nature/download.aspx?id=503.
15 *Birds of Aransas National Wildlife Refuge*, U.S. FISH & WILDLIFE SERV. (April 2010) available at http://www.fws.gov/uploadedFiles/species-Birds_2010.pdf.
16 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 847, 848 (S.D. Tex. 2012) *rev'd,* 801 F.3d 477 (5th Cir. 2015).
17 *CITGO Petroleum Corp.*, 801 F.3d at 480.
18 *Id.*
19 *Id.* at 481.
20 United States v. CITGO Petroleum Corp., No. CRIM.A. C-06-563, 2011 WL 1155684, at *2 (S.D. Tex. Mar. 28, 2011) *rev'd*, 801 F.3d 477 (5th Cir. 2015).
21 *CITGO Petroleum Corp.*, 801 F.3d at 481 (the statutory maximum is $15,000 per violation).
22 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 847, 848 (S.D. Tex. 2012) *rev'd,* 801 F.3d 477 (5th Cir. 2015).
23 *CITGO Petroleum Corp.*, 801 F.3d at 481.
24 *Id.* at 488.

court rejected the government's functional definition of an oil-water separator as any equipment used to separate oil and water, instead interpreting the regulation more narrowly to apply only to certain tanks with specified ancillary equipment.[25] Thus, the district court's jury instruction suggesting that tanks 116 and 117, which lack any of the ancillary equipment mentioned in the regulation, could be oil-water separators subject to said regulation was harmful error and grounds for reversal.[26]

Migratory Bird Treaty Act Convictions

The court reversed all three convictions stemming from alleged violations of the MBTA, ruling that "taking" under the act is limited to deliberate acts done directly and intentionally to birds.[27]

In finding CITGO guilty of unlawful taking under the MBTA, the district court took sides on what was, at the time, a roughly even split between courts.[28] The central question was whether "taking" required an intentional killing, as in hunting or trapping, or a strict liability crime in which any act or omission that ultimately caused the death of migratory birds could be a source of liability. The alleged omission resulting in the death of migratory birds was the operation of tanks 116 and 117 without the roofs mandated both by the CAA and Texas law.[29] The district court pointed to Fifth Circuit precedent that MBTA violations were strict liability offenses, though the principle case it cited involved a hunter who exceeded his bag limit.[30] The court then looked to cases in the Second and Tenth Circuits in which liability had been imposed for analogous actives.[31] In *United States v. FMC Corp.*, the Second Circuit found a toxic chemical manufacturer guilty of taking under the MBTA after numerous birds perished in the nearby pond where FMC discharged its toxic wastewater.[32] In *United States v. Apollo Energies, Inc.*, the Tenth Circuit upheld taking liability for two oil company operators when migratory birds died as a result of nesting in certain oil field equipment.[33] Significantly, the U.S. Fish and Wildlife Service had embarked on a multi-year education campaign warning of the dangers of that equipment to migratory birds and suggesting protective measures, and only began prosecutions under MBTA after two years had passed.[34]

In *CITGO*, the district court found the underlying illegal activity of operating tanks 116 and 117 without roofs, coupled with evidence that CITGO had been made aware of the risk to birds at least ten years earlier, were sufficient to support its conclusion that CITGO proximately caused the deaths in violation of the MBTA.[35]

---

25 *Id.*
26 *Id.*
27 *CITGO Petroleum Corp.*, 801 F.3d at 489.
28 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 843 (S.D. Tex. 2012), *rev'd*, 801 F.3d 477 (5th Cir. 2015).
29 *Id.*
30 *Id.* at 844 (citing United States v. Morgan, 311 F.3d 611, 616 (5th Cir.2002)).
31 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 844 (S.D. Tex. 2012), *rev'd*, 801 F.3d 477 (5th Cir. 2015).
32 United States v. FMC Corp., 572 F.2d 902, 908 (2d Cir. 1978).
33 United States v. Apollo Energies, Inc., 611 F.3d 679, 682 (10th Cir. 2010).
34 *Id.*
35 United States v. CITGO Petroleum Corp., 893 F. Supp. 2d 841, 848 (S.D. Tex. 2012), *rev'd*, 801 F.3d 477 (5th Cir. 2015).

The Fifth Circuit disagreed, rejecting the Second and Tenth Circuits' approaches and siding instead with the Eighth and Ninth Circuits in finding that taking is limited to deliberate acts done intentionally and directly to migratory birds.[36] The court first looked at the common law definition of "take" espoused by Justice Scalia in his dissent in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, a case under the Endangered Species Act (ESA).[37] In *Babbitt*, Scalia defined take as "to reduce those animals, by killing or capturing, to human control," which, according to the Fifth Circuit, could not encompass an accident, omission, or unintentional killing.[38] The Fifth Circuit then contrasted "take" in the MBTA with its definition in the ESA and Marine Mammal Protection Act.[39] In both of those acts, each adopted almost 60 years after the MBTA, Congress explicitly provided more expansive definitions of "take," including the terms "harass" and "harm," which have been read to include negligent and reckless acts.[40] In the absence of such terms in the MBTA, the court chose to adopt the narrower, common law definition. The Fifth Circuit likewise found no statutory support for the district court's theory that liability could arise from violations of other laws, and found the issue irrelevant since CITGO's CAA convictions were also overturned.[41]

The court was most concerned with the grand scope of liability that the government was advocating.[42] Taken to its extreme, imposing liability for accidents or omissions could have absurd consequences.[43] The court noted that hundreds of millions of birds die each year by simply flying into windows.[44] Communication towers, cars, and domestic cats are likewise responsible for significant loss of bird life.[45] According to the court, it was extremely unlikely that Congress contemplated the harsh penalties, including up to six months in prison and up to a $15,000 fine, for every occasion that a bird runs into a building, or every time a cat brings home a member of one of the almost 900 species of birds protected in the MBTA.[46]

Under this narrow definition of "take," CITGO's operation of tanks without roofs did not subject them to liability under the MBTA, and all convictions were reversed.[47]

CONCLUSION

The court found the government had overreached in convicting CITGO under the MBTA and the CAA. Having sided with the Eighth and Ninth Circuits in adopting a narrow definition of "take" under the MBTA, the Fifth Circuit joined an increasingly fractured legal landscape. Many within the circuit's jurisdiction applauded the decision.

---

36 *CITGO Petroleum Corp.*, 801 F.3d at 488, 489.
37 *Id.*
38 *Id.* (quoting Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687, 717 (1995)).
39 *CITGO Petroleum Corp.*, 801 F.3d at 488, 489.
40 16 U.S.C. § 1532(19) (2015); 16 U.S.C. § 1362(13) (2015).
41 *CITGO Petroleum Corp.*, 801 F.3d at 488, 493.
42 *Id.*
43 *Id.*
44 *Id.*
45 *Id.*
46 *Id.*
47 *Id.* at 488, 493.

This was especially true in Texas, where the petroleum industry has an enormous presence. The decision likewise came as a relief to less carbon intensive sources of energy, as MBTA liability has been a source of uncertainty in Texas' burgeoning wind power sector.

The decision may face a rehearing before the Fifth Circuit *en banc*, and possibly before the Supreme Court. The split over MBTA liability between five circuits might encourage the Supreme Court to grant writ of certiorari and settle the issue. With the recent passing of Justice Scalia, the question could very well end up in front a court with a profoundly different ideological make-up, where the outcome would be far from certain.

David J. Klein is a member of the Lloyd Gosselink Rochelle & Townsend, P.C.'s Water and Districts Practice Groups in Austin, where he focuses on representing water utilities, municipalities, water districts, water authorities and landowners with their water supply, water quality, and water and sewer utility service interests. Mr. Klein earned his J.D. from The John Marshall Law School in Chicago, Illinois.

Colin Cox is a third-year student at The University of Texas School of Law and the Symposium Director of the Texas Environmental Law Journal.

DOS REPUBLICAS COAL P'SHIP V. SAUCEDO, 477 S.W.3D 828 (TEX. APP.— CORPUS CHRISTI 2015, NO PET.)

Dos Republicas Coal Partnership ("Dos Republicas") challenged the 293rd District Court of Maverick County's order denying Dos Republicas' petition for a writ of mandamus against Judge Saucedo, the Floodplain Administrator and County Judge of the Maverick County Commissioners Court ("the Judge").[1] Dos Republicas asserted that the trial court erred in denying its petition because: (1) the Judge violated its due process rights; (2) the Judge failed to perform a ministerial duty; (3) the Judge committed an abuse of discretion in denying its permit application.[2]

BACKGROUND

In 1977, the Federal Emergency Management Agency (FEMA) designated areas of Maverick County as "special flood hazards."[3] Pursuant to section 16.318 of the Texas Water Code, the Maverick County Commissioner adopted a Flood Damage Prevention Ordinance ("Ordinance") for the express purpose of minimizing flood losses.[4] The Judge, as the Floodplain Administrator, reviews permits for development in the floodplain and determines whether to grant or deny the permit based on the provisions set forth in the Ordinance.[5]

In 2009, Dos Republicas sought to "renew, revise, and expand" an existing permit and receive a new floodplain development permit from the Judge.[6] In April 2014, the Judge issued an order denying Dos Republicas' application for a floodplain development permit.[7] Dos Republicas then sought to compel the Judge to issue the permit.[8] In October 2014, a trial court denied Dos Republicas' petition for a writ of mandamus.[9] This appeal followed.

DUE PROCESS

Dos Republicas contended that the Judge abused his discretion when he denied the permit application without a hearing.[10] The court rejected this, explaining that due process was not at issue because Dos Republicas' asserted harm–the denial of the permit and

---

1 Dos Republicas Coal P'ship v. Saucedo, 477 S.W.3d 828, 832 (Tex. App.—Corpus Christi 2015, no pet.)
2 *Id.*
3 *Id.* at 833; 61 Fed. Reg. 54,563 (Oct. 21, 1996); Maverick County, Tex., Flood Damage Prevention Ordinance art. 3, § B (Aug. 12, 1996).
4 *Dos Republicas*, 477 S.W.3d at 833.
5 *Id.* at 834.
6 *Id.*
7 *Id.* at 835.
8 *Id.*
9 *Id.*
10 *Id.* at 836.

subsequent inability to commence operations–concern using the property for mining, which is not a constitutionally-protected vested right.[11]

THE JUDGE'S PERMIT APPLICATION DUTY: MINISTERIAL OR DISCRETIONARY?

Dos Republicas also argued that the Judge, as the Floodplain Administrator, had a purely ministerial duty to grant its permit application.[12] The court described "ministerial acts" as those that are performed with such precision and certainty as to leave nothing to the exercise of discretion or judgment.[13] Here the Floodplain Administrator is tasked with "[r]eview[ing] permit application[s] to determine whether proposed building site[s] . . . will be reasonably safe from flooding" and is also required to "review, approve, or deny all applications for development permits required by adoption of this ordinance."[14] Thus, because the Ordinance grants the Floodplain Administrator with decision-making powers, the Judge had more than a mere ministerial duty to grant the application.[15]

DID THE JUDGE CONSIDER IRRELEVANT FACTORS?

Dos Republicas contended, *inter alia*, that the Judge abused his discretion by considering factors that were irrelevant in the permit process.[16] Specifically, Dos Republicas pointed to the Judge's statements indicating his decision was based on: (1) the best interests of Maverick County; (2) his personal experiences; (3) coal mining regulations; and (4) floodwater quality concerns.[17]

The court determined that the Judge indeed abused his discretion by considering floodwater quality concerns since the Ordinance's scope did not grant the Judge authority to regulate "floodwater quality."[18] Also, it was undisputed that Dos Republicas' received the necessary permits from the Texas Commission for Environmental Quality (TCEQ), including permits pertaining to stormwater and mine seepage discharge and the required Texas Pollutant Discharge Elimination System permit.[19] Therefore, the Judge acted outside his authority, and the Court sustained Dos Republicas' contention on this issue.[20]

CONCLUSION

The Court reversed the trial court's order denying Dos Republicas' petition for writ of mandamus on the ground that the trial court erred when it found that the Judge, as

---

11 *Id.*
12 *Id.* at 837.
13 *Id.* (quoting Ballantyne v. Champion Builders, Inc., 144 S.W.3d 417, 425 (Tex. 2004) (citing Comm'r of the Gen. Land Office v. Smith, 5 Tex. 471, 479 (1849)).
14 *Dos Republicas*, 477 S.W.3d at 837.
15 *Id.* at 838-39.
16 *Id.* at 843.
17 *Id.*
18 *Id.* at 847.
19 *Id.*
20 *Id.*

Floodplain Administrator, had not abused his discretion by considering an irrelevant factor in denying Dos Republicas' permit application.[21]

Howard Slobodin is the General Counsel and Secretary, Board of Directors, of the Trinity River Authority of Texas in Arlington. He received his B.A. from the University of Oregon in 1998 (cum laude) and his J.D. from the University of Texas School of Law in 2001 (with honors).

David Presley is a third-year student at The University of Texas School of Law and a staff member of the TEXAS ENVIRONMENTAL LAW JOURNAL.

21 *Id.*