

Identifying and Valuing Groundwater Withdrawal Rights in the Context of Takings Claims—A Texas Case Study

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I.	LEGAL REGIMES GOVERNING GROUNDWATER IN TEXAS.....	410
	A. <i>The Historic Legal Regime Governing Groundwater in Texas: The Rule of Capture</i>	411
	B. <i>The Modern Legal Regime Governing Groundwater in Texas: Groundwater Conservation District Regulation</i>	414
II.	TAKINGS LAW INVOLVING GROUNDWATER REGULATION IN TEXAS	418
III.	DEFINING AND VALUING GROUNDWATER RIGHTS UNDER THE RULE OF CAPTURE.....	428
	A. <i>How Exactly Does One Define, and Subsequently Value, a Landowner’s Right Under the Rule of Capture?</i>	428
	B. <i>Defining and Valuing Groundwater Rights Authorized by Groundwater District Regulation</i>	431
IV.	DETERMINING WHETHER ANY PROPERTY HAS BEEN TAKEN WILL REQUIRE IDENTIFICATION OF THE RELEVANT PARCEL	432
V.	CONCLUSION	437

Water rights in Texas have long been contentious. Battles over the right to appropriate water have ranged from the international to the very local. Though the daily flow gauges on overappropriated river systems like the Concho and the Guadalupe reflect an ongoing struggle for those

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precious drops of surface water,¹ long-established state ownership and regulation of surface water have left the most heated fights to those seeking to withdraw groundwater, which is governed by a different legal regime than surface water owned by the State.²

Most of the debate at water law conferences in Texas has focused on whether or not the common law Rule of Capture right to groundwater is constitutionally protected and thus capable of being “taken” by groundwater regulation.³ There has been little discussion of how to quantify or value such a right, even if it is vested for purposes of a takings analysis.

This Article focuses on the challenging task of quantifying and valuing groundwater rights in Texas for purposes of conducting a regulatory takings analysis in light of the as yet unanswered question of how to characterize the nature of the disappearing common law Rule of Capture right to withdraw groundwater. I will provide a brief overview of the legal regimes currently governing groundwater withdrawals in Texas, review pending constitutional takings litigation in Texas involving groundwater, and discuss issues relevant to measuring and valuing groundwater rights dependent upon the context in which the right is classified.

I. LEGAL REGIMES GOVERNING GROUNDWATER IN TEXAS

Groundwater withdrawals in Texas are either subject to the common law “Rule of Capture,” also known as the “English Rule” or the “Rule of Absolute Ownership,” or, where they exist, to regulation by local groundwater conservation districts.⁴

1. See Tex. Comm’n on Envtl. Quality, Map of Watermasters Area, http://www.tceq.state.tx.us/compliance/field_ops/wmaster/wmaster.html#map1 (last visited Jan. 22, 2010).

2. In Texas, surface water is owned and regulated by the State. See TEX. WATER CODE ANN. §§ 11.001-11.561 (Vernon 2008 & Supp. 2009).

3. Susana Canseco, Address at the 2008 Water Institute, The University of Texas School of Law CLE: Why Texas Courts Should Hold Landowners Do Not Own Groundwater in Place (Dec. 4-5, 2008); Susana Canseco & Dylan Drummond, Address at the 2008 Water Institute, The University of Texas School of Law CLE: Ownership of Groundwater: Who Owns It? Can Anyone? (Dec. 4, 2008); Sydney Falk, Jr. & Darcy Alan Frownfelter, Address at the 2009 Water Institute, The University of Texas School of Law CLE: Groundwater Ownership in Texas: When Does It Vest? (Dec. 10, 2009); Andrew Miller, State Bar of Tex., Address at the Changing Face of Water Rights in Texas 2009: Regulatory Takings Litigation—A Focus on Groundwater: Background and History, the Vested Rights Issue and Beyond (Apr. 2009); Kenneth Kaye, State Bar of Tex., Address at the Changing Face of Water Rights in Texas 2004: Water Rights Cases in the Courts and Regulatory Agencies Since 2001 (Feb. 2004).

4. See, e.g., *Sipriano v. Great Springs Waters of Am.*, 1 S.W.3d 75, 76-79 (Tex. 1999); *Friendswood Dev. Co. v. Smith-Sw. Indus.*, 576 S.W.2d 21, 25-27 (Tex. 1978).

Texas law classifies the right to withdraw groundwater as a real property right, subject to severance and separate conveyance.⁵ As the Texas Supreme Court observed in *Evans v. Ropte*, “It seems to be almost universally recognized that a right created by a grant to enter upon land and take and appropriate the waters of a spring or well thereon amounts to an interest in real estate, regardless of the term by which such right may be designated. . . . In all events, it is an interest in land.”⁶ Notably, the Texas Tax Code defines “real property” to include “an estate or interest” in “land.”⁷ Furthermore, the Texas Private Real Property Rights Preservation Act defines “private real property” as “an interest in real property recognized by common law, including a groundwater or surface water right of any kind, that is not owned by the federal government, this state, or a political subdivision of this state.”⁸

A. *The Historic Legal Regime Governing Groundwater in Texas: The Rule of Capture*

The first Texas court case to address and define the legal nature of the right to withdraw groundwater and to address the possibility of damages for the private “taking” of groundwater was *Houston & Texas Central Railway Co. v. East*, decided by the Texas Supreme Court in 1904.⁹ In *East*, the Texas high court adopted the English “Rule of Capture” to govern groundwater.¹⁰ Mr. East owned a shallow water well

5. See, e.g., *Evans v. Ropte*, 96 S.W.2d 973, 974 (Tex. 1936); *City of Altus v. Carr*, 255 F. Supp. 828, 840 (W.D. Tex. 1966) (finding that under Texas law, a right to withdraw groundwater “may be exercised by the landowner or made the subject of an independent grant of ownership”). The *Altus* court noted, however, that once the groundwater has been withdrawn, it becomes “personal property subject to sale and commerce.” *Id.*

6. *Evans*, 96 S.W.2d at 974; see also *Barshop v. Medina Underground Water Conservation Dist.*, 925 S.W.2d 618, 623-26 (1996) (recognizing “property rights of landowners in the water beneath their land,” referring to the water rights of landowners, and stating that “our prior decisions recognize . . . the property ownership rights of landowners in underground water”); *Friendswood*, 576 S.W.2d at 22, 28-29 (explaining that English Rule is a “rule of property law” and an “established rule of property law”); *City of Corpus Christi v. City of Pleasanton*, 276 S.W.2d 798, 802 (Tex. 1955); *Tex. Co. v. Burkett*, 296 S.W. 273, 278 (Tex. 1927). Groundwater generally is not (1) surface water, (2) underground water in defined channels, or (3) riparian waters. *Pecos County Water Control & Improvement Dist. No. 1 v. Williams*, 271 S.W. 2d 503, 506-07 (Tex. Civ. App. 1954). Springflows derived from percolating waters coming out of the banks of a watercourse are the exclusive property of the owner of the surface estate “who had all the rights incident to them one might have as to any other species of property.” *Burkett*, 296 S.W. at 278 (citing Long on Irrigation, §§ 45, 47); see also *Pecos County Water Control & Improvement Dist. No. 1*, 271 S.W.2d at 505 (stating that the right of a landowner to use groundwater under his land is “based on a concept of property ownership”).

7. TEX. TAX CODE ANN. § 1.04(2)(F) (Vernon 2008).

8. TEX. GOV'T CODE ANN. § 2007.002(4) (Vernon 2008).

9. 81 S.W. 279 (Tex. 1904).

10. *Id.* at 281.

on his property that went dry after a railroad company drilled a larger, deeper well on the adjacent property and began pumping considerable quantities of water from it, draining water away from Mr. East's well.¹¹ Mr. East then sued the railroad company.¹² The Texas Supreme Court rejected East's claim for damages, holding that a person who owns the surface of land may drill a well and use the water therefrom, even if such use causes the well of another to go dry.¹³ The Rule of Capture adopted by the *East* court was set forth in English common law in the *Acton v. Blundell* case as follows:

[T]he person who owns the surface may dig therein, and apply all that is there found to his own purposes at his free will and pleasure; and that if, in the exercise of such right, he intercepts or drains off the water collected from underground springs in his neighbour's well, this inconvenience to his neighbour falls within the description of *damnum absque injuria* [an injury without a remedy], which cannot become the ground of an action.¹⁴

The *East* court specifically followed the decision in *Acton*, and even adopted the reasoning of the English court: "In all that has been said in subsequent discussions, little, if anything, has been added to the arguments of counsel and of the court in [*Acton*]."¹⁵

Under the Rule of Capture, a landowner needs no permit or other permission to drill a well and pump groundwater; he may pump as much water as he can beneficially use; he may even pump so much water that it causes his neighbor's wells to go dry; and he may use or sell the water withdrawn for use without limitation as to the place of use.¹⁶ For more than a century since the *East* decision by the Texas Supreme Court, only three limitations under the Rule of Capture have been created. A landowner may not: (1) "maliciously take water for the sole purpose of injuring his neighbor;" (2) "wantonly and willfully waste" the water produced, or (3) negligently drill or produce from a well in a manner that causes subsidence on a neighbor's property.¹⁷ Because the right to withdraw groundwater under the Rule of Capture is incident to

11. *Id.* at 280.

12. *Id.*

13. *Id.* at 281.

14. *Acton v. Blundell*, (1843) 153 Eng. Rep. 1223, 1235 (Exch.).

15. *East*, 81 S.W. at 280.

16. *See* *Sipriano v. Great Springs Waters of Am.*, 1 S.W.3d 75, 76 (Tex. 1999); *City of Corpus Christi v. City of Pleasanton*, 276 S.W.2d 798, 802 (Tex. 1955).

17. *Corpus Christi*, 276 S.W.2d at 801; *Friendswood Dev. Co. v. Smith-Southwest Indus.*, 576 S.W.2d 21, 30 (Tex. 1978).

ownership of the surface estate, the right continues along with ownership of the land in question.¹⁸

Practically then, the only restriction on groundwater use under the Rule of Capture is posed by availability. Landowners can use as much groundwater as they can produce with no requirement that permits be obtained, fees be paid, or reports be submitted. Application of the common law rule has resulted in Texas courts affirming the drying up of major springs in West Texas due to the overpumping of groundwater upon which the springs relied.¹⁹ In any case, because landowners' right to withdraw groundwater depends entirely on its existence beneath their land and their ability to pump it, this right is not generally considered reliable for long-term use.²⁰

Not surprisingly then, the Rule of Capture has been criticized as "harsh and outmoded."²¹ Indeed, Texas is the only state in the country that has not fully abandoned the Rule of Capture.²² Problematically, the rule provides no protection for a landowner—she can do nothing, short of drilling a deeper well and installing a bigger pump, to prevent the water under her land from being drained away by another landowner.²³ While refusing to abandon the Rule of Capture in *Sipriano v. Great Springs Waters of America*, the Texas Supreme Court noted that there are "compelling reasons for groundwater use to be regulated."²⁴ "In the past several decades it has become clear, if it was not before, that it is not [groundwater] regulation that threatens progress, but the lack of it."²⁵

The Texas Supreme Court's original adoption of the Rule of Capture in *East* was expressly premised on the supposition that the rule applies only in the absence of contrary legislation. "*In the absence of . . . positive authorized legislation*, as between proprietors of adjoining land, the law recognizes no correlative rights in respect to underground waters

18. See *East*, 81 S.W. at 281.

19. See *Pecos County Water Control & Improvement Dist. No. 1 v. Williams*, 271 S.W.2d 503, 507 (Tex. Civ. App. 1954).

20. See, e.g., *Sipriano*, 1 S.W.3d at 81-82 (Hecht, J., concurring).

21. *Friendswood*, 576 S.W.2d at 28-29.

22. *Sipriano*, 1 S.W.3d at 82 (Hecht, J., concurring); Dana M. Saeger, *The Great Lakes-St. Lawrence River Basin Water Resources Compact: Groundwater, Fifth Amendment Takings, and the Public Trust Doctrine*, 12 GREAT PLAINS NAT. RESOURCES J. 114, 128 (2007).

23. See *Sipriano*, 1 S.W.3d at 76.

24. *Id.* at 80.

25. *Id.* at 82 (Hecht, J., concurring); cf. Marc Stimpert, *Clear the Air—Counterpoint: Opportunities Lost and Opportunities Gained: Separating Truth from Myth in the Western Ranching Debate*, 36 ENVTL. L. 481, 483 (discussing the merits of the Rule of Capture, which "reward[s] the industrious, creative labor of American citizens," in particular, Western ranchers).

...²⁶ Groundwater conservation districts (GCDs), created by special legislation or the Texas Commission on Environmental Quality (TCEQ) pursuant to chapter 36 of the Texas Water Code, represent the result of precisely that type of positive legislation modifying the Rule of Capture. Groundwater district law has largely supplanted the Rule of Capture as the legal regime governing groundwater in Texas. However, the extent to which the State of Texas or GCDs may be liable for “taking” a landowner’s common law Rule of Capture rights has not yet been determined.

B. The Modern Legal Regime Governing Groundwater in Texas: Groundwater Conservation District Regulation

Groundwater conservation districts are created pursuant to section 59, article XVI of the Texas Constitution, adopted in 1917 by the citizens of Texas, which imposes upon the Texas Legislature the duty to protect Texas’ natural resources:

The conservation and development of all of the natural resources of this State ... and the preservation and conservation of all such natural resources of the State are each and all hereby declared public rights and duties; and the Legislature shall pass all such laws as may be appropriate thereto.²⁷

This provision makes it clear that “in Texas, responsibility for the regulation of natural resources, including groundwater, rests in the hands of the Legislature.”²⁸

Article XVI, section 59, expressly allows for the creation of groundwater conservation districts:

There may be created within the State of Texas ... conservation and reclamation districts as may be determined to be essential to the accomplishment of the purposes of this amendment to the constitution, which districts shall be governmental agencies and bodies politic and corporate with such powers of government and with the authority to exercise such rights, privileges and functions concerning the subject matter of this amendment as may be conferred by law.²⁹

In 1949, the Legislature first authorized the creation of “underground water conservation districts.”³⁰ But it was not until the

26. *Houston & Tex. Cent. Ry. Co. v. East*, 81 S.W. 279, 280 (Tex. 1904) (emphasis added) (quoting *Frazier v. Brown*, 12 Ohio St. 294 (1861)).

27. TEX. CONST. art. XVI, § 59(a).

28. *Sipriano*, 1 S.W.3d at 77.

29. TEX. CONST. art. XVI, § 59(b).

30. See 1949 Tex. Gen. Laws 559, 559-63.

1980s that the Legislature began to create a significant number of new districts.³¹ The Legislature has also authorized the creation of groundwater districts by the TCEQ.³² Generally, once a district is created by the Legislature or the TCEQ, a majority of voters in the area in which the district is located must approve the district's creation.³³ As of April 2010, ninety-six groundwater districts have been created and confirmed in Texas.³⁴ Another two districts are currently awaiting the outcome of confirmation elections.³⁵ Overall, groundwater districts now cover over half of the state.³⁶

The powers and duties of GCDs are set forth in the organic legislation creating them, if applicable, and in chapter 36 of the Texas Water Code, which applies by its terms to all GCDs.³⁷ The Texas Legislature has adopted chapter 36 of the Texas Water Code to govern groundwater districts in the state, declaring that they "are the state's preferred method of groundwater management."³⁸ Generally, chapter 36 prevails over any other law that it is in conflict with, except for a district's organic act.³⁹ Although most GCDs' organic acts do little more than set forth district boundaries, establish temporary directors and the method to select permanent directors, and grant the district powers under chapter 36,⁴⁰ some organic acts, such as the act creating the Edwards Aquifer Authority, provide some significant additional powers and limitations.⁴¹

Over time, the Legislature has mostly increased the powers of groundwater districts by amending chapter 36 of the Texas Water Code. The most significant amendments occurred in 1997 under Senate Bill 1,⁴² and in 2001 under Senate Bill 2.⁴³ The Legislature's expansion of the powers of groundwater districts continued into the 78th Legislative

31. See Bruce Wasinger, State Bar of Tex., Address at The Changing Face of Water Rights in Texas 2001, Groundwater Districts—A New Day in Texas (Feb. 2001).

32. TEX. WATER CODE ANN. §§ 36.011-.0151 (Vernon 2008).

33. See *id.* §§ 36.017, .0171.

34. See Tex. Water Dev. Bd., Groundwater Conservation Districts, (Confirmed and Pending Confirmation), http://www.twdb.state.tx.us/mapping/maps/pdf/gcd_only_8x11.pdf (last visited Jan. 23, 2010).

35. See *id.*

36. See *id.*

37. TEX. WATER CODE ANN. § 36.001(1).

38. *Id.* § 36.0015.

39. *Id.* § 36.052.

40. See, e.g., TEX. SPEC. DIST. CODE ANN. chs. 8801-8830 (Vernon 2009).

41. See 1993 Tex. Gen. Laws 2350, as amended; see also TEX. SPEC. DIST. CODE ANN. §§ 8801.001-.204. This is an organic act of the Harris-Galveston Subsidence District, which is no longer subject to chapter 36, Texas Water Code.

42. 1997 Tex. Gen. Laws 3610, 3642-3653.

43. 2001 Tex. Gen. Laws 1880, 1896-1909.

Session in 2003 when the Legislature amended section 36.116 of the Texas Water Code to allow a district to impose different rules and production standards upon different aquifers or geographic areas within its jurisdiction, if local conditions warrant the differing standards.⁴⁴ Significant changes to chapter 36 occurred during the 2005 Regular Legislative Session, mandating increased coordination, planning, and goal setting by and between multiple GCDs within a given groundwater management area; endowing the Texas Water Development Board (TWDB) and the TCEQ with increased monitoring, approval, and oversight powers over GCDs; and substantially altering the procedural requirements for rulemaking and permit processing by GCDs.⁴⁵ Less significant amendments to chapter 36 of the Water Code occurred in subsequent biannual legislative sessions.⁴⁶

The various provisions of chapter 36 grant districts wide discretion as to how they regulate groundwater, leaving it largely to districts to determine how best to carry out their obligations to protect groundwater and those dependent upon it within their jurisdiction, subject to approval by a joint planning group.⁴⁷ Section 36.101(a) provides a broad-based grant of authority to districts, authorizing them to “make and enforce rules . . . to provide for conserving, preserving, protecting, and recharging of the groundwater . . . in order to control subsidence, prevent degradation of water quality, or prevent waste of groundwater and to carry out the powers and duties provided by this chapter.”⁴⁸ However, it is the joint planning group, comprised of all GCDs within a designated geographic area, which approves by a two-thirds vote the desired future condition (DFC) for each aquifer or subdivision of an aquifer within their planning area and then submits that DFC to the TWDB.⁴⁹ In response, the TWDB provides each district and joint planning group with “managed available groundwater” amounts based on the DFCs.⁵⁰ Each GCD is then required to adopt a groundwater management plan and to submit that plan to the TWDB, addressing particular issues identified in the statute, including water supply needs, management goals and the amount of water estimated to be used and recharged annually within the district.⁵¹ Districts are then required to adopt rules consistent with their

44. 2003 Tex. Gen. Laws 3507.

45. 2005 Tex. Gen. Laws 3247.

46. *See* TEX. WATER CODE ANN. §§ 36.011-.0151 (Vernon 2008 & Supp. 2009).

47. *See id.* § 36.108.

48. *Id.* § 36.101.

49. *Id.* § 36.108.

50. *Id.* § 36.108(o).

51. *Id.* § 36.1071.

management plan,⁵² and “to the extent possible, shall issue permits up to the point that the total volume of groundwater permitted equals the managed available groundwater.”⁵³ Thus, much like the cap on permitted withdrawals established by the Texas Legislature for the Edwards Aquifer, the managed available groundwater amounts will serve as a limit on permitted withdrawals by local GCDs throughout Texas.

Districts are provided wide discretion as to how to manage production under a permitting scheme. For example, GCDs may place limits on production by requiring permits for production and therein imposing annual production limits and withdrawal rates.⁵⁴ Districts may also regulate groundwater withdrawals by imposing “production caps,” authorizing production up to the total maximum amount of groundwater that the district determines may reasonably be produced annually from within the district.⁵⁵ Importantly, in regulating groundwater production, chapter 36 authorizes districts to consider and protect “existing” or “historic” use.⁵⁶ Chapter 36 does not define “historic use” or “existing use,” leaving it to districts to develop their own criteria and the mechanisms by which and to what extent such use should be protected. The concept of giving GCDs wide latitude as to how, and how much, to control groundwater production arguably makes good sense in Texas, a state with enormous variability in the distribution of groundwater and surface water supplies, population, precipitation rates, and all of the other factors that play into the availability of water. There is also a great variety in the types of aquifers found in the state and the demands placed upon those aquifers.⁵⁷

The imposition of mandated groundwater planning and management, including permitting requirements in accordance with the managed available groundwater amounts, likely to restrict groundwater withdrawals in at least some areas of the state, represents a sea change in legal requirements imposed on groundwater in Texas. This has led to the filing of numerous constitutional takings claims against groundwater districts, primarily challenging whether the limitation or extinction of Rule of Capture rights entitles landowners to an award of damages in the form of just compensation in a takings action.⁵⁸

52. *Id.* § 36.1071(f).

53. *Id.* § 36.1132.

54. *Id.* § 36.116(a)(2).

55. *See* 1993 Tex. Gen. Laws 2350, as amended, upheld by *Barshop v. Medina Underground Water Conservation Dist.*, 925 S.W.2d 618, 623-25 (Tex. 1996).

56. *See* TEX. WATER CODE ANN. §§ 36.113(e), .116(b).

57. *See* TEX. WATER DEV. BD., WATER FOR TEXAS 38-47 (2002).

58. *See, e.g., Barshop*, 925 S.W.2d 618.

II. TAKINGS LAW INVOLVING GROUNDWATER REGULATION IN TEXAS

As a result of the *Williamson County Regional Planning Commission v. Hamilton Bank of Johnson County* requirement that takings claims under the United States Constitution are not ripe until a plaintiff has sought, and been denied, just compensation in a state court,⁵⁹ most takings claims in Texas are based on the takings clause of the Texas Constitution, article I, section 17, which provides: “No person’s property shall be taken, damaged or destroyed for or applied to public use without adequate compensation being made” The similar language in the federal and state constitutional prohibitions against takings has led Texas courts to generally rely on the United States Supreme Court’s interpretation of the federal takings clause when construing Texas’ takings provision.⁶⁰ Although the Texas Constitution prohibits the “damaging” of property as well as the “taking” of property, plaintiffs in cases against groundwater districts have pled that their property was “taken” by groundwater regulation, not “damaged.”⁶¹

“The paradigmatic [governmental] taking requiring just compensation is a direct . . . appropriation or physical invasion of private property.”⁶² However, where government regulation is “so onerous that its effect is tantamount to a direct appropriation or ouster,” such regulatory takings may be compensable.⁶³ These “takings can be classified as either physical or regulatory.”⁶⁴ The physical occupation or invasion of property—when the property itself is taken—is considered a “physical taking.”⁶⁵ A regulatory taking involves government regulation that either denies the property owner of *all* economically beneficial or productive use of his property, generally referred to as a *Lucas v. South Carolina Coastal Commission* taking, or regulation that so interferes with the landowner’s right to use and enjoy his property as to constitute a taking, analyzed under the *Penn Central Transportation Co. v. City of New York* analysis, both of which are generally referred to as “regulatory

59. *Williamson County Reg’l Planning Comm’n v. Hamilton Bank of Johnson City*, 473 U.S. 172, 195 (1985).

60. *See Sheffield Dev. Co. v. City of Glenn Heights*, 140 S.W.3d 660, 669 (Tex. 2004); *City of Austin v. Travis County Landfill Co.*, 73 S.W.3d 234, 236-37 (Tex. 2002); *City of Corpus Christi v. Pub. Util. Comm’n of Tex.*, 51 S.W.3d 231, 242 (Tex. 2001).

61. *See, e.g., Bragg v. Edwards Aquifer Auth.*, No. SA-06-CV-1129-SR, 2008 WL 596862, at *2 (W.D. Tex. Jan. 9, 2008).

62. *Lingle v. Chevron U.S.A., Inc.*, 544 U.S. 528, 537 (2005).

63. *Id.*

64. *Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922, 933 (Tex. 1998).

65. *Lowenberg v. City of Dallas*, 168 S.W.3d 800, 802 (Tex. 2005).

takings.’⁶⁶ Whether there has been a taking is a question of law for the court to decide, not a question of fact for the jury.⁶⁷

Landowners alleging a physical taking by groundwater regulation are confronted with significant challenges in pleading a cognizable claim but, if they could succeed in doing so, they may enjoy the benefit of recovering just compensation for even the limited property interest they can establish has been taken.⁶⁸ A physical taking generally occurs when the government directly appropriates private property or takes action resulting in the equivalent of a “practical ouster of . . . possession.”⁶⁹ Physical takings “are relatively rare, easily identified, and usually represent a greater affront to individual property rights” than regulatory takings.⁷⁰ Physical takings involve the *acquisition* of property for *public* use versus regulatory takings which *prohibit* the *private* uses of property.⁷¹ In the lead physical takings case, *Loretto v. Teleprompter Manhattan CATV Corp.*, the United States Supreme Court held that where government causes a permanent physical occupation of property, it must provide compensation for a physical taking.⁷² A physical taking has also been found where governmental action results in the destruction of property or government imposes a servitude on property.⁷³

Although landowners in Texas have relied on the Federal Court of Claims’ decision in *Tulare Lake Basin Water Storage District v. United*

66. *Westgate, Ltd. v. State*, 843 S.W.2d 448, 452 (Tex. 1992); *Lucas v. S.C. Coastal Comm’n*, 505 U.S. 1003, 1015 (1992); *Penn Cent. Trans. Co. v. City of New York*, 438 U.S. 104, 124 (1978).

67. *City of College Station v. Turtle Rock Corp.*, 680 S.W.2d 802, 804-05 (Tex. 1984).

68. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 437 (1982) (explaining that once a physical occupation is established, a court shall consider the extent of the occupation to determine the amount of compensation due).

69. *Lucas*, 505 U.S. at 1014 (quoting *Transp. Co. v. Chicago*, 99 U.S. 635, 642 (1879) (internal quotations omitted)).

70. *Lowenberg*, 168 S.W.3d at 801-02 (quoting *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 324 (2002)).

71. *See City of San Antonio v. El Dorado Amusement Co.*, 195 S.W.3d 238, 244-45 (Tex. App. 2006).

72. *Loretto*, 458 U.S. at 434-35 (finding a taking where cable lines installed on plaintiff’s property pursuant to government regulation that required landowners to permit installation of cable lines).

73. *See, e.g., Tarrant Reg’l Water Dist. v. Gragg*, 151 S.W.3d 546, 558 (Tex. 2004) (finding that landowners could recover for flooding of their property caused by the construction and operation of a reservoir and a dam); *Steele v. City of Houston*, 603 S.W.2d 786, 791-93 (Tex. 1980) (finding that landowners could recover for fire set in house by police); *City of Houston v. McFadden*, 420 S.W.2d 811, 813-15 (Tex. Civ. App. 1967) (finding a taking where vibration and noise from low-flying airplanes intruded on private airspace); *City of Austin v. Teague*, 570 S.W.2d 389, 394 (Tex. 1978) (granting recovery for property owner who lost all use of property when the city denied a development permit and sought to impose a servitude on land for a scenic easement).

*States*⁷⁴ as support for treating government regulation of groundwater withdrawals as a physical taking,⁷⁵ more recent federal case law involving physical takings claims with respect to water regulation provides little hope for this approach. The *Tulare Lake* case involved a suit by California water users against the United States, claiming that their contractually conferred rights to use water were taken when the federal government imposed water use restrictions under the Endangered Species Act to protect two fish species.⁷⁶ Judge Wiese wrote the court's decision, which diverged from earlier federal courts' instructions about the distinctions between physical and regulatory takings, and held that the restrictions on water withdrawals imposed by the federal government constituted a physical taking of plaintiffs' contractually guaranteed rights to a particular amount of water.⁷⁷ The decision was first significantly undercut by the same court's decision in *Klamath Irrigation District v. United States*,⁷⁸ which considered a very similar takings claim by water users suing the federal government for a physical taking of their water rights as a result of the government's termination of irrigation water deliveries to them in order to protect endangered fish species.⁷⁹ The *Klamath* court rejected plaintiffs' reliance on the earlier *Tulare Lake* decision, holding that the case sounded in contract, not takings, and noted that *Tulare Lake* "appears to be wrong on some counts, incomplete in others and, distinguishable, at all events."⁸⁰ Most importantly, the same judge who decided *Tulare Lake* refused to apply it in the similar *Casitas Municipal Water District v. United States* case. In *Casitas*, a water district brought suit against the United States for an alleged physical taking caused by restrictions on surface water diversions imposed by the government to protect endangered species.⁸¹ In deciding whether or not the plaintiffs had a cognizable physical takings claim, the *Casitas* court reconsidered its decision in *Tulare Lake*.⁸² On further reflection, and in light of the Supreme Court's reaffirmation of the distinctions between physical and regulatory takings in *Tahoe-Sierra v. Preservation Council v.*

74. 49 Fed. Cl. 313 (Fed. Cl. 2001).

75. See *Bragg v. Edwards Aquifer Auth.*, No. SA-06-CV-1129-XR, 2008 WL 596862, at *2 (W.D. Tex. Jan. 9, 2008).

76. *Tulare*, 49 Fed. Cl. at 314-16.

77. *Id.* at 319.

78. 67 Fed. Cl. 504 (Fed. Cl. 2005).

79. *Id.* at 513-14.

80. *Id.* at 538-40.

81. *Casitas Mun. Water Dist. v. United States (Casitas I)*, 76 Fed. Cl. 100, 102 (Fed. Cl. 2007) (Wiese, J.), *aff'd in part, rev'd in part, and remanded*, 543 F.3d 1276 (Fed. Cir. 2008).

82. *Id.* at 103.

Tahoe Regional Planning Agency,⁸³ Judge Wiese held that because the government did not physically invade property or direct “the property’s use to its own needs,” but rather restrained the owner’s use of property, there could be no physical taking.⁸⁴ Indeed, on appeal, the Federal Circuit affirmed the analysis used by the district court for reviewing physical takings claims, although it reached a different result, holding that because the government required the plaintiff to build a fish ladder and then divert water, the plaintiff had contractual rights to use away from its own canals to the fish ladder to protect an endangered species, a physical taking had occurred.⁸⁵ In sum, the road to establishing a physical taking due to groundwater regulation is steep indeed.

Plaintiffs alleging that groundwater regulation has caused a taking have an incentive to claim a “categorical” taking under *Lucas*, especially if the property considered by the court to be affected can be limited to something less than the landowner’s interest in all of the real property, because the analysis involves a simple determination of the value of property before and after regulation.⁸⁶ To establish a *Lucas* taking, a plaintiff must prove that the action of the government deprives him of *all* economically beneficial or productive use of his property.⁸⁷ A regulation denies all economically beneficial or productive use of property if it “renders the property valueless.”⁸⁸ Thus, landowners must prove, as a matter of law, that groundwater regulation has deprived their relevant property of *all* value. One commentator has suggested that *Lucas* may not be applicable to takings claims involving water in Texas;⁸⁹ however, in light of the consistent declarations by Texas courts that rights to groundwater are an interest in real property,⁹⁰ this argument would seem to be a nonstarter in the state.

83. 535 U.S. 302, 323-25 (2002).

84. *Casitas I*, 76 Fed. Cl. at 106.

85. *Casitas Mun. Water Dist.*, 543 F.3d 1276, 1288-96.

86. See *Mayhew v. Town of Sunnyvale*, 964 S.W.2d 922, 935 (Tex. 1998); see also Robert Meltz, *Takings Law Today: A Primer for the Perplexed*, 34 *ECOLOGY L.Q.* 307, 330-31 (2007).

87. *Lucas v. S.C. Coastal Comm’n*, 505 U.S. 1003, 1015 (1992). Note that a regulatory taking may also result from a regulation that results in actual physical invasion. *Id.*

88. *Mayhew*, 964 S.W.2d at 935.

89. See Stephanie E. Hayes Lusk, *Texas Groundwater: Reconciling the Rule of Capture with Environmental and Community Demands*, 30 *ST. MARY’S L.J.* 305, 339-40 (1998) (relying on Barton H. Thompson, Jr., *Takings and Water Rights*, in *WATER LAW: TRENDS, POLICIES AND PRACTICE* 34, 48 (Kathleen Marion Carr & James D. Crammond eds., 1995), discussing difficulty of applying takings jurisprudence to water rights which are not real property interests); Joseph L. Sax, *Rights That “Inhere in the Title Itself”: The Impact of the Lucas Case on Western Water Law*, in *WATER LAW: TRENDS, POLICIES AND PRACTICE*, *supra*, at 83-84 (noting that traditionally water rights are not possessory interests in which one can own water).

90. See cases cited *supra* note 6.

The most likely analysis applicable to the claim that groundwater regulation has occasioned a taking is the *Penn Central* analysis; however, it is also the most unwieldy.⁹¹ To determine whether the government has unreasonably interfered with a landowner's right to use and enjoy property under *Penn Central* requires consideration of the character of the governmental action, the economic impact of the regulation, and the extent to which the regulation interferes with reasonable investment-backed expectations of the landowner.⁹² In reviewing governmental action under this standard, a court will engage in an "essentially ad hoc, factual inquir[y]," looking at all three of these factors.⁹³ In *Penn Central*, a historic preservation regulation that resulted in prohibiting plaintiffs from developing their property in the airspace above their existing building, was held not to constitute a taking of their property.⁹⁴ The premise of the *Penn Central* analysis is that a regulation that substantially furthers important public purposes *may* so frustrate distinct investment-backed expectations as to comprise a taking. And although the historic preservation regulation in that case was found not to be a taking, the case nonetheless mandates that the impact of a regulation on the "parcel as a whole" be considered.⁹⁵

Although the *East* case established that damages would not be available where one private party "takes" the groundwater that had previously been available to another private party,⁹⁶ Texas courts have not decisively addressed whether the State of Texas or a groundwater conservation district may have liability for limiting, by regulation, the same rights.

Before engaging in a takings analysis, it must first be established that the property claimed to have been "taken" is actually vested property entitled to constitutional protection.⁹⁷ As the Texas Supreme Court noted in *City of Dallas v. Trammell*, "A right to be within the protection of the Constitution, must be a vested right. It must be something more than a *mere expectancy based upon an anticipated continuance of an existing*

91. See Meltz, *supra* note 86, at 333-47.

92. *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 129 (1978); *Palazzolo v. Rhode Island*, 533 U.S. 606, 633-34 (2001); see also *Sheffield Dev. Co. v. City of Glenn Heights*, 140 S.W.3d 660, 672 (Tex. 2002).

93. *Penn Cent.*, 438 U.S. at 124; see also *Lucas v. S.C. Coastal Comm'n*, 505 U.S. 1003, 1015 (1992).

94. *Penn Cent.*, 438 U.S. at 130-38.

95. *Id.* at 127; see also *City of Dallas v. Blanton*, 200 S.W.3d 266, 273-79 (Tex. App. 2006).

96. *Houston & Tex. Cent. Ry. Co. v. East*, 81 S.W. 279, 280-81 (Tex 1904).

97. See *State v. Operating Contractors*, 985 S.W.2d 646, 653 (Tex. App. 1999) ("[B]ecause [plaintiffs] did not have vested rights . . . they suffered no taking.").

law.”⁹⁸ If the property does not rise to the level of a vested property right, then no further takings analysis need be undertaken and the claim for compensation must fail.

The Texas Supreme Court first addressed whether regulation by a GCD constituted a taking in *Barshop v. Medina County Underground Water Conservation District*.⁹⁹ In *Barshop*, the Texas Supreme Court considered whether the provisions of the Edwards Aquifer Authority Act authorizing groundwater withdrawal permits to be issued based on historical use constituted a facial taking.¹⁰⁰

In 1993, determining that it was “necessary, appropriate, and a benefit to the welfare of this state to provide for the management of the [Edwards] aquifer,” the Legislature passed the Edwards Aquifer Authority (EAA) Act.¹⁰¹ It did so under a threat by a federal district judge to regulate withdrawals from the Edwards Aquifer pursuant to the federal Endangered Species Act in order to protect endangered and threatened species dependent on flows from Comal and San Marcos Springs.¹⁰² The EAA Act created the EAA and empowered it to implement a comprehensive regulatory scheme to control and manage the withdrawal of groundwater from the Edwards Aquifer.¹⁰³ The EAA Act imposes a cap on annual pumping from the Edwards Aquifer and authorizes only those entities that were already using Edwards groundwater when the Act was passed to obtain a groundwater withdrawal permit. In order to be entitled to a permit, an “existing user” must prove that it pumped and beneficially used water from the Edwards Aquifer during the “historical period” between June 1, 1972, and May 31, 1993.¹⁰⁴

98. 101 S.W.2d 1009, 1014 (Tex. 1937) (emphasis added) (quoting *Dodge v. Bd. of Educ.*, 5 N.E.2d 84, 86 (1936)).

99. 925 S.W.2d 618 (Tex. 1996). The Texas Supreme Court had earlier affirmed the Houston Court of Appeals’ decision in *Beckendorff v. Harris-Galveston Coastal Subsidence District*, which held that the legislation creating the Harris-Galveston Coastal Subsidence District to regulate groundwater withdrawals was constitutional, although not challenged on takings grounds. 558 S.W.2d 75, 81-82 (Tex. Civ. App. 1977).

100. *Barshop*, 925 S.W.2d at 630.

101. 1993 Tex. Gen. Laws 2350, as amended.

102. See *Sierra Club v. Babbitt*, 995 F.2d 571, 573-75 (5th Cir. 1993) (requiring federal and state agencies to protect springflows from the Aquifer and encouraging Texas to develop a regulatory system to limit Aquifer withdrawals).

103. *Sierra Club v. City of San Antonio*, 112 F.3d 789, 792 (5th Cir. 1997). The Edwards Aquifer is a unique underground system of water-bearing geologic formations in Central Texas. *Edwards Aquifer Auth. v. Day*, 274 S.W.3d 742, 748-50 (Tex. App. 2008), *pet. granted*, No. 08-0964. Water enters the Edwards Aquifer through the ground as surface water and rainfall and leaves through well withdrawals and springflow. The Edwards Aquifer is the primary source of water for residents of the south central part of Texas; the Aquifer and its water are vital to the general economy and welfare of the State. *Id.*

104. 1993 Tex. Gen. Laws 2350, as amended, §§ 1.03(10), 1.16(a), (b), (d).

The *Barshop* court assumed without deciding that the plaintiffs had a vested property right in groundwater, recognizing that “we have not previously considered the point at which water regulation unconstitutionally invades the property rights of landowners,”¹⁰⁵ and held that such a claim was premature as the Act had not yet been applied to deny landowners of any property.¹⁰⁶ The court observed that affected landowners may be able to challenge the application of the EAA Act to their property but warned: “It will be the landowner’s burden to establish a vested property right in the underground water which the Authority eviscerated. The landowner will also have to prove damages and the failure to receive adequate compensation from the State.”¹⁰⁷

In the more than thirteen years since the *Barshop* decision, the Texas Supreme Court has yet to address any “as applied” takings claims based on groundwater regulation; however, the *Day v. Edwards Aquifer Authority* case, now pending before the court, squarely presents the question of whether a landowner possesses a constitutionally protected right in groundwater pursuant to the common law Rule of Capture.¹⁰⁸ If the Texas Supreme Court affirms the court of appeals’ holding that a landowner holds a vested right to future groundwater withdrawals under the Rule of Capture, GCDs throughout Texas will brace themselves for what is likely to be an onslaught of takings litigation by any landowner with enough capital to wage a lawsuit. Groundwater districts are funded by statutorily limited ad valorem taxes and fees assessed on users,¹⁰⁹ and the potential costs of litigation could be crippling. In the EAA region alone, encompassing all or parts of eight counties in South-Central Texas, including Bexar County and the nation’s seventh-largest city, San Antonio,¹¹⁰ the number of landowners overlying the Edwards Aquifer who were deprived of their common law right to withdraw groundwater under the Rule of Capture is staggering.¹¹¹ If the Texas Supreme Court reverses the court of appeals, consistent with the jurisprudence of a host of other states holding that common law water rights may be modified or limited by the state in the public interest without implicating constitu-

105. *Barshop*, 925 S.W.2d at 626.

106. *Id.* at 630-31.

107. *Id.*

108. *Edwards Aquifer Auth. v. Day*, No. 08-0964 (Tex. *pet. granted* Jan. 15, 2010).

109. *See* TEX. WATER CODE ANN. §§ 36.201-.207 (Vernon 2008) (district revenues).

110. 1993 Tex. Gen. Laws 2350, as amended, § 1.04 (establishing EAA territorial boundaries).

111. U.S. Census Bureau, Population Div., 2008 Population Estimates, <http://www.census.gov/popest/cities/tables/SUB-EST2008-01.csv> (last visited Feb. 20, 2010).

tional concerns,¹¹² the multitude of pending and anticipated takings suits against GCDs in Texas will evaporate.

The *Day* case involves a takings claim based on the abrogation of the common law Rule of Capture by the EAA Act, and the issuance by the Edwards Aquifer Authority of a groundwater withdrawal permit at an amount substantially below the application amount.¹¹³ Day and McDaniel (D & M) filed an application with the EAA seeking a permit to withdraw Edwards Aquifer water for irrigation use.¹¹⁴ The EAA granted a permit to D & M for only part of the water requested in the application based on water withdrawn from a ditch on D & M's property, supplied by the Aquifer, but rejected D & M's claim for water withdrawn from a dammed creek on the property, although supplied primarily by water flowing from the Aquifer, because once the water entered the creek, it became state water and was no longer subject to the EAA's permitting jurisdiction.¹¹⁵ D & M challenged the Authority's permitting decision, seeking, among other things, a declaratory judgment that the EAA's decision on the permit application resulted in a taking of D & M's water rights under the common law Rule of Capture, without just compensation, in violation of the Texas Constitution.¹¹⁶ The EAA counterclaimed against the State of Texas, asserting that any taking in the case was the result of the EAA's implementation of the plain language of the EAA Act.¹¹⁷ The trial court denied D & M's takings claim, ruling for the EAA on its motion for summary judgment that D & M had no vested

112. See, e.g., *Bamford v. Upper Republican Natural Res. Dist.*, 512 N.W.2d 642, 652 (Neb. 1994) (finding that the legislature has the power to alter the common law governing groundwater and holding that a governmental entity's order enjoining the withdrawal of groundwater did not constitute a regulatory taking); *Cherry v. Steiner*, 543 F. Supp. 1270, 1277-78 (D. Ariz. 1982), *aff'd*, 716 F.2d 687 (9th Cir. 1983) (holding that legislation that abrogated or diminished plaintiffs' rights to groundwater under the preexisting common law did not deprive plaintiffs of property without due process); *Town of Chino Valley v. City of Prescott*, 638 P.2d 1324, 1327 (1981) (holding that a landowner has no ownership interest in the groundwater beneath his property prior to its capture); *Tequesta v. Jupiter Inlet Corp.*, 371 So. 2d 663, 666-67 (Fla.), *cert. denied*, 444 U.S. 965 (1979) (stating that a landowner had no constitutionally protected property right in water); *Williams v. City of Wichita*, 374 P.2d 578, 589 (Kan. 1962), *appeal dismissed*, 375 U.S. 7 (1963) (holding that a statute, which abrogated common law rules governing groundwater, did not violate due process); *Cal.-Or. Power Co. v. Beaver Portland Cement Co.*, 73 F.2d 555, 568-69 (9th Cir. 1934), *aff'd*, 295 U.S. 142 (1935) (holding that legislative modification of riparian surface water rights did not amount to a deprivation of property without due process).

113. See *Edwards Aquifer Auth. v. Day*, 274 S.W.3d 742, 748-50 (Tex. App. 2008), *pet. granted*, No. 08-964, (Jan. 15, 2010).

114. *Id.* at 748.

115. *Id.* at 749-50.

116. *Id.* at 750.

117. See *Day v. Edwards Aquifer Auth. v. Texas*, No. 04-04-0294-CVA (218th Dist. Ct., Atascosa County, Tex. Jan. 11, 2007).

right to continue to withdraw groundwater beneath their property under the common law Rule of Capture and, therefore, there was no need to conduct a takings analysis.¹¹⁸ The San Antonio Court of Appeals reversed the district court's ruling that D & M did not have a vested right to withdraw groundwater based on the Rule of Capture, holding in reliance on their earlier opinion in the *City of Del Rio v. Clayton Sam Colt Hamilton Trust* case that because "landowners have some ownership rights in the groundwater beneath their property . . . they have a vested right therein," and remanding to the trial court on the takings claim.¹¹⁹ Both the EAA and the State of Texas, as third-party defendant, argue that the Rule of Capture provides no vested right to withdraw groundwater, and, therefore, there can be no taking.¹²⁰ The EAA has argued in the alternative that there can be no vested right to water not previously withdrawn and placed to beneficial use. Amicus briefs have been filed by interested parties, including the Alliance of Edwards Aquifer Authority Permit Holders¹²¹ and the Harris-Galveston Subsidence District, in favor of the EAA and the State of Texas' position, and the Texas Farm Bureau, the Southwestern Cattle Raisers Association, and the Texas Comptroller, in support of D & M's position.¹²²

In addition to *Day*, several takings claims are now pending against groundwater conservation districts—alleging that the denial of a permit by a groundwater district or the issuance of a permit for less than applied for constitutes a taking of property for which just compensation is

118. *Day*, 274 S.W.3d at 750.

119. *Id.* at 756 (citing *City of Del Rio v. Clayton Sam Colt Hamilton Trust*, 269 S.W.3d 613, 617-18 (Tex. App. 2008)). The *Del Rio* case did not involve regulation by a groundwater conservation district but rather the construction of a deed reserving water rights under the Rule of Capture. See *City of Del Rio*, 269 S.W.3d at 613. The court in *Del Rio* held that due to the reservation of water rights by the Trust, the City did not own groundwater beneath the tract and so could not drill and pump it. *Id.* at 618. In reaching its conclusion, the court embraced the "absolute ownership" theory of groundwater that the surface owner owns the groundwater in place and concluded that the Trust could then sever and retain the ownership rights to the groundwater. *Id.* at 618-19; see also Dylan O. Drummond, Lynn Ray Sherman & Edmond R. McCarthy, Jr., *The Rule of Capture in Texas—Still So Misunderstood After All These Years*, 37 TEX. TECH L. REV. 1 (2004); cf. Corwin W. Johnson, *The Continuing Voids in Texas Groundwater Law: Are Concepts and Terminology To Blame?*, 17 ST. MARY'S LAW J. 1281, 1295 (1986) ("One must be careful not to read into the words 'ownership' and 'property' meanings that are not there."); Susana E. Canseco, *Landowners' Rights in Texas Groundwater: How and Why Texas Courts Should Determine Landowners Do Not Own Groundwater in Place*, 60 BAYLOR L. REV. 491 (2008).

120. *Edwards Aquifer Auth. v. Day*, No. 08-0964 (Tex. *pet. granted* Jan. 15, 2010).

121. The permitting of groundwater rights in the Edwards Aquifer has been lengthy and involved and would likely be upheld if nonusers are held to have vested rights to withdraw groundwater as well. See Darcy A. Frownfelter & Deborah Clarke Trejo, *The Rule of Capture and the Edwards Aquifer Adjudication*, 1 WATER REP. 1 (Mar. 2004).

122. See *Edwards Aquifer Auth. v. Day*, No. 08-0964 (Tex. *pet. granted* Jan. 15, 2010).

required. Pending cases allege that governmental regulation of groundwater has caused a taking based on the theories of physical and regulatory takings under *Lucas* and *Penn Central*.¹²³ The oldest pending takings claim against a GCD is *Guitar Holding Co., L.P. v. Hudspeth County Underground Water Conservation District No. 1*.¹²⁴ Challenges to the validity of the Hudspeth District's permitting and transfer rules on appeal led to invalidation of the District's rules related to transfers and may ultimately lead to the adoption of new permitting rules,¹²⁵ but a claim that the same District's rules result in an unconstitutional taking remains unresolved in district court.¹²⁶ The remaining takings cases are based on EAA regulation of groundwater withdrawals. *Chemical Lime, Ltd. v. Edwards Aquifer Authority*¹²⁷ involves a takings claim based on the EAA's denial of an application for an Initial Regular Permit filed by a historical Aquifer user after the deadline.¹²⁸ In *Bragg v. Edwards Aquifer Authority*, the plaintiffs allege a taking based on the EAA's denial of one permit application due to no use of groundwater during the EAA Act's historical period and the granting of another permit application for less than the amount requested because the plaintiffs were not given credit for withdrawals occurring outside of the EAA Act's historical period.¹²⁹ *Horton v. Edwards Aquifer Authority*, now on appeal, alleges a taking based on the partial denial of a transfer application but was dismissed by the district court for lack of jurisdiction as the claimants could not

123. See, e.g., *Bragg v. Edwards Aquifer Auth.*, No. 06-11-18170CV (38th Dist. Ct., Medina County, Tex. Nov. 21, 2006); *Edwards Aquifer Authority v. Horton*, No. 04-09-00375-CV (Tex. App.—San Antonio notice of appeal filed June 25, 2009); *Day v. Edwards Aquifer Authority v. State of Texas*, No. 04-04-0294-CVA; *Chem. Lime, Ltd. v. Edwards Aquifer Auth.*, No. C2004-115A (22d Dist. Ct., Comal County, Tex., filed Jan. 22, 2004) (takings claim); *Guitar Holding Co. v. Hudspeth County Underground Water Conservation Dist. No. 1*, No. 2703-205 (205th Dist. Ct., Hudspeth County, Tex., filed Oct. 16, 2002) (takings claim severed).

124. 209 S.W.3d 146 (Tex. App. 2006).

125. See *id.* at 164-66.

126. *Guitar Holding Co. v. Hudspeth Co. Underground Water Conservation Dist. No. 1*, No. 703-205 (205th Dist. Ct., Hudspeth County, Tex. filed Oct. 16, 2002).

127. No. C2004-115A (22d Dist. Ct., Comal County, Tex. filed Jan. 22, 2004).

128. In its original suit, *Chemical Lime* challenged the EAA rule establishing the deadline for filing IRP applications and claimed that it had substantially complied with the Act's filing requirements. See *id.* The district court severed the takings claim into this separate cause of action. *Id.* The Texas Supreme Court recently decided the deadline case holding that the EAA had properly established the deadline for filing IRP applications and *Chemical Lime* had not substantially complied with that deadline. *Edwards Aquifer Auth. v. Chem. Lime, Ltd.*, 291 S.W.3d 392, 404-05 (Tex. 2009).

129. No. 06-11-18170-CV (38th Jud. Dist., Medina County, Tex. filed Nov. 21, 2006). The Braggs also alleged federal civil rights claims against the EAA, all of which were dismissed. *Bragg v. Edwards Aquifer Auth.*, No. 08-50584, 2009 WL 2486935, at *1 (5th Cir. Aug. 14, 2009).

demonstrate that they owned the permitted rights at the time of the EAA's transfer denial.¹³⁰

Lower courts in Texas will likely soon address the nature and extent of the "vested" property interest in groundwater that plaintiffs claim groundwater regulation has taken. The courts will do this either by relying on the *Day* decision issued by the San Antonio Court of Appeals, or by assuming, without deciding, that landowners hold a vested property right in groundwater under the Rule of Capture.

III. DEFINING AND VALUING GROUNDWATER RIGHTS UNDER THE RULE OF CAPTURE

A. *How Exactly Does One Define, and Subsequently Value, a Landowner's Right Under the Rule of Capture?*

If a landowner has a vested right to something definable under the Rule of Capture and groundwater regulation has deprived a landowner of that right, it is probable that a landowner plaintiff will seek to define and value that right to establish a taking and that government will seek to do so as well in order to defeat such a claim. In the event that a Texas court determines that a physical taking has occurred as the result of groundwater regulation, the value of the taken water rights will serve as the amount of just compensation, simplifying the valuation process.¹³¹

Under the common law, landowners are not guaranteed any amount of water, as under the Rule of Capture, a landowner has no remedy against *anyone* if all the water under his property is taken, even from a well that the landowner has invested substantial sums of money in and relied on for his business or other purposes, as in the *East* case.¹³² The recent intermediate appellate decisions by the San Antonio Court of Appeals in *City of Del Rio* and *Day* indicate that a landowner has at least "some ownership rights" in groundwater beneath his property; however, thus far, those cases have not provided any clarification as to how such a right should be defined.¹³³ Therefore, landowner allegations that their

130. No. 07-03-25684-CV-A (38th Dist. Ct., Uvalde County, Tex., claims against the EAA dismissed June 5, 2009). The San Antonio Court of Appeals affirmed the dismissal of the takings claim. *Edwards Aquifer Auth. v. Horton*, No. 04-09-00375-CV, 2010 WL 374551 (Tex. App. San Antonio, pet. filed).

131. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 437 (1982) (finding that once a physical occupation is established, a court shall consider the extent of the occupation to determine the amount of compensation due).

132. *See Houston & Tex. Cent. Ry. Co. v. East*, 81 S.W. 279, 280-81 (Tex. 1904).

133. *See City of Del Rio v. Clayton Sam Colt Hamilton Trust*, 269 S.W.3d 613, 617-18 (Tex. App. 2008); *Edwards Aquifer Auth. v. Day*, 274 S.W.3d 742, 756 (Tex. App. 2008). "Although Texas is an extreme case, it shows how the rhetoric of property rights in water

property right under the Rule of Capture has been taken begs the questions of what property they have been deprived of, due to the nature of that common law principle.

Assuming for purposes of discussion that groundwater regulation deprives a landowner of any right to withdraw groundwater from beneath her property, let us consider the possible rights the landowner has been deprived of: (1) the right to drill a well, (2) the right to drill a well and attempt to obtain groundwater, or (3) the right to obtain a specific quantity of groundwater.¹³⁴

Certainly, if a landowner had a vested right to something under the Rule of Capture, that right included at least the right to drill a well. Under the common law, no prohibition existed on a landowner drilling a well. If groundwater regulation prohibits the drilling of new wells, this right has been taken.¹³⁵

Furthermore, the common law Rule of Capture absolutely authorized a landowner to both drill a well and attempt to obtain groundwater. This is consistent with an argument that governmental defendants, including the State of Texas, have made that a groundwater right under the Rule of Capture vests only to groundwater a landowner has reduced to possession, not to groundwater *in situ*.¹³⁶ If groundwater

employed throughout the West has far outstripped the reality of how limited or evanescent those property rights actually are.” John D. Leshy, *A Conversation About Takings and Water Rights*, 83 TEX. L. REV. 1985, 2005 (2005).

134. A specific quantity of groundwater may refer to the amount historically used, the amount that can reasonably be used by the landowner, the amount of groundwater determined to be “in place” beneath a landowner’s property, the amount that a landowner has the capacity to withdraw from the aquifer, or the amount of groundwater in the aquifer that may conceivably be obtained from beneath a landowner’s property.

135. It should be noted that well drilling is restricted not only by groundwater districts but by the State of Texas and other local governments as well. *See, e.g.*, 16 TEX. ADMIN. CODE ch. 76 (West 2009) (imposing technical requirements on well drilling, including spacing requirements); 30 TEX. ADMIN. CODE § 285.91, tbl.10 (West 2009) (prohibiting wells from being drilled within specified minimum distances from on-site sewage facilities); ABILENE, TEX., CODE OF ORDINANCES § 13-72 (2003); AMARILLO, TEX., CODE OF ORDINANCES § 8-5-2 (2000) (incorporating state regulations regarding on-site sewage facilities into their municipal code, including prohibitions on locating wells within certain distances from on-site sewage facilities); SAN MARCOS, TEX., CITY CODE § 5.2.6.1 (2008), <http://library7.municode.com/default-test/home.htm?infobase=11549&docaction=whatsnew> (last visited Mar. 10, 2010) (prohibiting development within a water quality zone); AUSTIN, TEX., CITY CODE § 25-8-281 (2008) (establishing a buffer zone around critical environmental features, prohibiting any construction within that zone).

136. *See* Barshop v. Medina County Underground Water Conservation Dist., 925 S.W.2d 618, 625 (Tex. 1996) (discussing State of Texas’ argument that “no constitutional taking occurs under the statute for landowners who have not previously captured water” because “until the water is actually reduced to possession, the right is not vested and no taking occurs”); *see also* Brief of Petitioner State of Texas at 21-22, *Edwards Aquifer Auth. v. Day*, No. 08-0964 (Tex. Sept. 18, 2009) (“[I]n a recharging Aquifer like the Edwards, if a property owner’s interest in water

regulation prohibits the drilling of new wells, and a landowner had a vested right to drill a new well and attempt to obtain groundwater, this right has also been taken.¹³⁷

Finally, can it be said that the Rule of Capture provided landowners with a vested right to a specific amount of groundwater? That conclusion seems counterintuitive because, in the *East* case, Mr. East was held not to be entitled to any water at all.¹³⁸ Based on the nature of the Rule of Capture, historic use is of no import and cannot provide the quantification of the right—that Mr. East was already using groundwater when the railroad drilled its well provided no remedy to him.¹³⁹ The *East* court specifically rejected the American reasonable use rule in favor of the Rule of Capture or the English rule.¹⁴⁰

Likewise, the *East* case provides no support for quantification of the right based on an individual's capacity, expectations, or the amount of water theoretically available from the aquifer.¹⁴¹ Indeed, because each

vested while the water was beneath [the] property, then that water would have to remain his property when it migrated below his neighbor's house—an eventuality that, as the [Texas Supreme] Court recognized in [*Texas Co. v. Daughtry*], the law does not allow for. 176 S.W. 717, 719 (holding that 'absolute ownership' does not occur until the fugacious material is removed from the ground)). Brief of Petitioner Edwards Aquifer Authority at 38-40, *Edwards Aquifer Auth. v. Day*, No. 08-0964 (Tex. Sept. 18, 2009) ("A never-exercised groundwater right is not backed by investment and sweat and cannot be seen as vested.") (citing *Baumann v. Smrha*, 145 F. Supp. 617, 624-25 (D. Kan.), *aff'd*, 352 U.S. 863 (1956); *Village of Tequesta v. Jupiter Inlet Corp.*, 371 So. 2d 663, 671 (Fla. 1979); *Susana Canseco, Landowners' Rights in Texas Groundwater: How and Why Texas Courts Should Determine Landowners Do Not Own Groundwater in Place*, 60 BAYLOR L. REV. 491 (2008); *Mayhew v. Town of Sunnysdale*, 964 S.W.2d 922, 937 (Tex. 1998)); *see also* Thompson, *supra* note 89, at 46 (discussing courts' historic hesitancy to accord especially unexercised water rights constitutional protection).

137. The State of Texas is authorized to prohibit the use of groundwater from a well within a contaminated area certified by a "municipal setting designation." TEX. HEALTH & SAFETY CODE ANN. § 361.808(e) (Vernon Supp. 2009). Section 361.8015 of the Health and Safety Code declares "that access to and the use of groundwater may need to be restricted to protect public health and welfare where the quality of groundwater presents an actual or potential threat to human health." *Id.* § 361.8015(a). Further, the code affirms the State's interest in the restriction of groundwater use by a municipality to protect public health as follows:

[A]n action by a municipality to restrict access to or the use of groundwater in support of or to facilitate a municipal setting designation advances a substantial and legitimate state interest where the quality of the groundwater subject to the designation is an actual or potential threat to human health.

Id. § 361.8015(b). The City of Houston, for instance, has adopted municipal code provisions regarding "municipal setting designations" for an area in which the use of groundwater as potable water is prohibited due to its contamination. HOUSTON, TEX., CODE OF ORDINANCES § 47-767 (2007).

138. *See Houston & Tex. Cent. Ry. Co. v. East*, 81 S.W. at 281-82 (Tex. 1904).

139. *See id.* at 280-82.

140. *Id.* at 280 (citing *Acton v. Blundell*, (1843) Eng. Rep. 1223, 1235 (Exch.)).

141. *See id.* at 279.

landowner has an equal right to drill a well and withdraw groundwater, an individual landowner would only seem to have the right to the specific quantity of groundwater in his possession,¹⁴² though this has also not yet been addressed by recent decisions.¹⁴³

There are three traditional methods used in Texas to determine the market value of property: the comparable sales method, the cost method, and the income method.¹⁴⁴ In limited circumstances, the subdivision development method may also be used.¹⁴⁵ The comparable sales method is favored by courts, but courts will accept other methods when comparable sales data is not available.¹⁴⁶ Comparable sales will likely be favored by courts as the best method to determine the value of any groundwater rights affected by regulation and also to quantify the value of the remainder.¹⁴⁷ However, due to the nature of the groundwater rights under the Rule of Capture and undeveloped groundwater markets in many parts of Texas, there may not be any comparable sales of the separate groundwater estate to rely on in appraising affected property and the value of groundwater rights, because a particular site may be reflected by the difference between the value of irrigated versus nonirrigated land, for example.¹⁴⁸

In sum, until further edification is provided by the courts, it may reasonably be concluded that any vested right under the Rule of Capture is limited to, at most, the right to both drill a well and attempt to obtain groundwater and that traditional methods of property valuation should be employed to quantify and appraise such a right.

B. Defining and Valuing Groundwater Rights Authorized by Groundwater District Regulation

Where water rights have been quantified by a GCD, the right is defined by the permit and a water market is likely to develop to quantify

142. See *Edwards Aquifer Auth. v. Day*, 274 S.W.3d 742, 749-50 (Tex. App. 2008); cf. 1 ERNEST E. SMITH & JACQUELINE LANG WEAVER, *TEXAS LAW OF OIL & GAS* § 1.1(a) (2d ed. 2007) (“Under the rule of capture [applicable to oil and gas] a person owns all of the oil and gas produced by a well bottomed on his own land, even though the well may be draining the substances from beneath other property.”).

143. See *City of Del Rio v. Clayton Sam Colt Hamilton Trust*, 269 S.W.3d 613, 617-18 (Tex. App. 2008); *Day*, 274 S.W.3d at 756.

144. *City of Harlingen v. Estate of Sharboneau*, 48 S.W.3d 177, 182 (Tex. 2001).

145. *Id.* at 185-86.

146. *State v. Cent. Expressway Sign Assocs.*, No. 08-0061, 2009 WL 3969544, at *2 (Tex. Nov. 20, 2009).

147. See Meltz, *supra* note 86, at 336.

148. See generally Susan M. Maxwell & Denise V. Cheney, *Groundwater Transactions*, in *ESSENTIALS OF TEXAS WATER RESOURCES* 386 (Mary K. Sahs ed., 2009).

the value of that right. In fact, it is generally recognized that one of the primary purposes for the passage of the EAA Act was the creation of a water market in groundwater rights in the Edwards Aquifer, and that has been the case.¹⁴⁹

In cases involving the alleged taking of an issued groundwater withdrawal permit, the value of the water rights allegedly taken by the regulating GCD has been pegged to the value of permitted rights in the relevant market.¹⁵⁰

IV. DETERMINING WHETHER ANY PROPERTY HAS BEEN TAKEN WILL REQUIRE IDENTIFICATION OF THE RELEVANT PARCEL

In determining whether a regulatory taking has occurred under the United States Constitution, courts have consistently applied the “parcel as a whole” rule, comparing “the value that has been taken from the property with the value that remains in the property.”¹⁵¹ However, plaintiffs in pending takings cases against GCDs in Texas, under the Texas Constitution, have taken the position that the relevant parcel where a landowner has been deprived of her groundwater right is the groundwater estate alone.¹⁵²

Traditionally, in regulatory takings cases, the “parcel as a whole” serves as the denominator in the fraction used to evaluate the economic

149. See, e.g., Ronald A. Kaiser & Laura M. Phillips, *Dividing the Waters: Water Marketing as a Conflict Resolution Strategy in the Edwards Aquifer Region*, 38 NAT. RESOURCES J. 411 (1998); Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL. L. 241, 277 (2000); Barton H. Thompson, Jr., *What Good Is Economics?*, 37 U.C. DAVIS L.R. 175, 194 (2003); Todd H. Votteler, *The Little Fish that Roared: The Endangered Species Act, State Groundwater Law, and Private Property Rights Collide over the Texas Edwards Aquifer*, 28 ENVTL. L. 845, 874-76 (1998); Todd H. Votteler, *Raiders of the Lost Aquifer? Or, the Beginning of the End to Fifty Years of Conflict over the Texas Edwards Aquifer*, 15 TUL. ENVTL. L. J. 257, 314 (2002); cf. Ronald C. Griffin & Fred O. Boadua, *Water Marketing in Texas: Opportunities for Reform*, 32 NAT. RESOURCES J. 265, 285-86 (1992) (noting that a precursor bill to the EAA Act had the intent of establishing marketable groundwater rights in the Aquifer).

150. See, e.g., Plaintiffs' Original Petition at 15, *Day v. Edwards Aquifer Auth.*, No. 08-0964 (Tex. pet. granted Jan. 15, 2010); Plaintiffs' Motion for Partial Summary Judgment at 28, *Bragg v. Edwards Aquifer Auth.*, No. 06-11-18170CV (38th Dist. Ct., Medina County, Tex. Oct. 6, 2008).

151. *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470, 497 (1987); see also *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency*, 535 U.S. 302, 327 (2002); *Concrete Pipe & Prods. v. Constr. Laborers Pension Trust for So. Cal.*, 508 U.S. 602, 643-44 (1993); *Andrus v. Allard*, 444 U.S. 51, 66 (1979); *Penn Cent. Trans. Co. v. City of New York*, 438 U.S. 104, 130-36 (1978).

152. See, e.g., *Bragg v. Edwards Aquifer Auth.*, No. SA-06-CV-1129-XR, 2008 WL 596862, at *3 (W.D. Tex. Jan. 9, 2008).

impact of the challenged governmental action.¹⁵³ As the Supreme Court stated in *Penn Central*:

“Taking” jurisprudence does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated. In deciding whether a particular governmental action has effected a taking, this Court focuses rather both on the character of the action and on the nature and extent of the interference with rights in the parcel as a whole.¹⁵⁴

Courts in Texas, when confronted with the issue, have adopted the “parcel as a whole” rule,¹⁵⁵ although the Texas Supreme Court has not expressly addressed the issue.¹⁵⁶ Courts may consider the value of a single interest in property to determine the value of property as a whole, but such consideration does not alter the fundamental “parcel as a whole” rule. For example, courts allow the value of a mineral estate to be used to determine land value, and the Texas Legislature has authorized the value of groundwater rights to be determined in eminent domain actions separately as part of determining land value.¹⁵⁷

The “parcel as a whole” rule did come under fire in *Lucas*, where Justice Scalia, the opinion’s author, argued that “the rule does not make clear the ‘property interest’ against which the loss of value is to be measured,” and indeed, may not apply in every case.¹⁵⁸ Notwithstanding, the “parcel as a whole” rule was strongly reaffirmed in 2002 by the United States Supreme Court in the *Tahoe-Sierra* decision, leaving little

153. See *Cane Tenn., Inc. v. United States (Cane II)*, 60 Fed. Cl. 694, 698-99 (2004).

154. *Penn Cent.*, 438 U.S. at 130-31; see also *Keystone Bituminous Coal*, 480 U.S. at 497.

155. See, e.g., *Town of Flower Mound v. Stafford Estates Ltd. P’ship*, 71 S.W.3d 18, 44 (Tex. App. 2002), *aff’d*, 135 S.W.3d 620 (Tex. 2004) (referencing *Penn Central* and *Keystone Bituminous Coal* for the proposition that the impact on the parcel as a whole must be considered); *Estate of Scott v. Victoria County*, 778 S.W.2d 585, 590 (Tex. App. 1989) (“Where [a property] owner possesses a full bundle of property rights, the destruction of one strand of the bundle is not a taking, because the aggregate must be viewed in its entirety.”); *City of Corpus Christi v. Davis*, 622 S.W.2d 640, 646-47 (Tex. App. 1981) (adopting the “proper rule” that because water rights are appurtenant to real property, compensation should be measured by comparing the effect on the value of water rights on the land to which they are appurtenant).

156. See *Sheffield Dev. Co. v. City of Glenn Heights*, 140 S.W.3d 660, 671 n.56 (Tex. 2004) (quoting Justice Scalia in *Lucas* expressing dissatisfaction with the rule); see also Timothy Riley, *Wrangling with Urban Wildcatters: Defending Texas Municipal Oil and Gas Development Ordinances Against Regulatory Takings Challenges*, 32 VT. L. REV. 349, 394 (2007) (describing Texas jurisprudence with respect to the parcel as a whole rule as unsettled).

157. *Coastal Indus. Water Auth. v. Trinity Portland Cement Div., Gen. Portland Cement Co.*, 523 S.W.2d 462, 466-68 (Tex. Civ. App. 1975); TEX. PROP. CODE ANN. § 21.0421 (Vernon Supp. 2009).

158. *Lucas v. S.C. Coastal Comm’n*, 505 U.S. 1003, 1016 n.7 (1992).

doubt that it is the default rule in regulatory takings cases.¹⁵⁹ As the Court stated in *Tahoe-Sierra*:

This requirement that “the aggregate must be viewed in its entirety” explains why, for example, a regulation that prohibited commercial transactions in eagle feathers, but did not bar other uses or impose any physical invasion or restraint upon them, was not a taking. It also clarifies why restrictions on the use of only limited portions of the parcel, such as setback ordinances, or a requirement that coal pillars be left in place to prevent mine subsidence, were not considered regulatory takings. In each of these cases, we affirmed that “where an owner possesses a full ‘bundle’ of property rights, the destruction of one ‘strand’ of the bundle is not a taking.”¹⁶⁰

In determining what exactly the “parcel as a whole” is, a court focuses on “the economic expectations of the claimant with regard to the property” and whether a given property is treated as “a single economic unit.”¹⁶¹ Additional considerations in defining the parcel include: “(i) the degree of contiguity between property interests; (ii) the dates of acquisition of property interests; [and] (iii) the extent to which a parcel has been treated as a single income-producing unit.”¹⁶² Generally, the relevant parcel is considered to be all of the landowner’s contiguous, affected property.¹⁶³

A smaller parcel may be appropriate where only a smaller parcel is owned or regulated. The United States Court of Appeals for the Fifth Circuit considered whether an ordinance banning quarrying or mining within city limits constituted a taking under Texas law in *Vulcan Materials Co. v. City of Tehuacana* and, making an *Erie Railroad Co. v. Tompkins* guess, held that although the “parcel as a whole” rule applied, because Vulcan only possessed a leasehold right to quarry limestone, the relevant parcel was limited to Vulcan’s quarrying right within the city’s regulatory jurisdiction.¹⁶⁴ *Vulcan* relies on *Whitney Benefits, Inc. v.*

159. *Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg’l Planning Agency*, 535 U.S. 302, 327 (2002); *see, e.g.*, *Appollo Fuels, Inc. v. United States*, 54 Fed. Cl. 717, 726-27 (2002) (distinguishing *Whitney Benefits, Inc. v. United States*, 926 F.2d 1169 (Fed. Cir. 1991), and applying parcel as a whole rule); *Cane Tenn., Inc. v. United States (Cane I)*, 54 Fed. Cl. 100, 105 (2002).

160. *Tahoe-Sierra*, 535 U.S. at 327 (internal citations omitted).

161. *Norman v. United States*, 429 F.3d 1081, 1091 (Fed. Cir. 2005); *see also* *Brace v. United States*, 72 Fed. Cl. 337, 348 (Fed. Cl. 2006).

162. *Brace*, 72 Fed. Cl. at 348.

163. *See, e.g., id.*; *Walcek v. United States*, 303 F.3d 1349, 1355-56 (Fed. Cir. 2002); *Karam v. State*, 705 A.2d 1221, 1227 (N.J. Super. Ct. App. Div. 1998); *see also* Dwight H. Merriam, *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency—Rules for the Relevant Parcel*, 25 U. HAW. L. REV. 353 (2003).

164. *Vulcan Materials Co. v. City of Tehuacana*, 369 F.3d 882, 889-91 (5th Cir. 2004).

United States, decided by the Federal Circuit, which also considered the effect of a regulation on a separate estate—the coal estate, in that case.¹⁶⁵ In *Whitney Benefits*, the plaintiffs' interest in the coal estate alone was at issue, and the court found that their purchase of the land overlying the coal estate was done only as part of their coal mining investment and other uses of the land, including farming, would be speculative based on the record.¹⁶⁶ There are, of course, outlier cases that have not applied the “parcel as a whole” rule, but they have been the exception rather than the norm and have generally preceded the United States Supreme Court's recent reaffirmance of the “parcel as a whole” rule in *Tahoe-Sierra*.¹⁶⁷

Plaintiffs and their amici in cases pending against groundwater conservation districts have argued for a broad departure from the “parcel as a whole” rule in Texas, reasoning that because a groundwater estate may be severed from the surface estate in Texas and because section 21.0421 of the Texas Property Code allows the value of groundwater rights to be determined separately in eminent domain actions as part of determining land value, the “parcel as a whole” rule in takings cases involving groundwater rights in Texas should be disregarded.¹⁶⁸ One commentator relies on section 21.0421 to opine that the provision “may have . . . simplified the prosecution of a regulatory takings claim involving groundwater [and] foreclosed any judicial debate about the relevant parcel of property taken by groundwater regulation.”¹⁶⁹ Neither the severability of groundwater estates, nor the language of section 21.0421 of the Texas Property Code however, may be read in derogation of the “parcel as a whole” rule in Texas.

165. *Whitney Benefits, Inc. v. United States*, 926 F.2d 1169 (Fed. Cir. 1991).

166. *See id.* at 1174. *But see* *Cane Tenn., Inc. v. United States (Cane N)*, 54 Fed. Cl. 100, 106 (2002) (declining to follow analysis in *Whitney Benefits*).

167. *See, e.g.*, *Fla. Rock Indus., Inc. v. United States*, 18 F.3d 1560, 1562-63 (Fed. Cir. 1994) (treating as relevant only the smaller parcel for which section 404 Clean Water Act permit was sought); *Loveladies Harbor, Inc. v. United States*, 28 F.3d 1171, 1174 (Fed. Cir. 1994) (treating as relevant only the separate parcel for which the landowner sought a Section 404 permit, applying a “flexible approach, designed to account for such factual nuances”); *see also Karam*, 705 A.2d at 1228 (distinguishing *Florida Rock* and *Loveladies Harbor* as cases that “involved large tracts of acreage that had been segmented into smaller parcels for development at different times, and either because of the configuration of the property or its history, the divided parcels had been considered as separate and distinct entities or units”).

168. *See, e.g.*, *Bragg v. Edwards Aquifer Auth.*, No. SA-06-CV-1129-XR, 2008 WL 596862, at * 3 (W.D. Tex., Jan. 9, 2008); *see* Plaintiffs' Motion for Partial Summary Judgment at 26-28, *Bragg v. Edwards Aquifer Auth.*, No. 06-11-18170CV (38th Dist. Ct., Medina County, Tex. Oct. 6, 2008); Brief of Respondent Day and McDaniel at 28, *Day and McDaniel v. Edwards Aquifer Auth.*, No. 08-0964 (Tex. pet. granted Jan. 15, 2010).

169. *See* Phil Steven Kosub, *Water for a Public Purpose: Governmental Acquisition of Water Right by Involuntary Means*, in *ESSENTIALS OF TEXAS WATER RESOURCES* 632 (Mary Kisahs ed., 2009).

Where plaintiffs hold an interest in an entire property, that property is treated as the relevant parcel: “Although various aspects associated with the ownership of real property may be severable, and under state law may be ‘property’ in and of themselves, they cannot be segregated from the bundle for the purposes of takings analysis.”¹⁷⁰ This is as true where the regulated rights are to water as it is where the rights are to some other species of real property.¹⁷¹ In *City of Corpus Christi v. Davis*, the Austin Court of Appeals held that where governmental action deprived a landowner of littoral rights, those rights should be valued as part of the market value of land.¹⁷² The court adopted the view expressed in Nichols’ *Law of Eminent Domain*, § 13.23, that in determining compensation for the deprivation of water rights appurtenant to real property, “it is not proper to evaluate separately such appurtenant rights. Consideration is given only to the effect of such appurtenances upon the market value of the property to which they are appurtenant.”¹⁷³ It is, therefore, entirely irrelevant that groundwater interests are generally severable from land and may be treated as a separate estate for some purposes under Texas law.

Section 21.0421 of the Texas Property Code merely crafts an exception to the general rule in condemnation cases that separate estates in land are only valued as a means to arrive to a more accurate reflection of the land value.¹⁷⁴ Section 21.0421 expressly allows project enhancement to be considered in: (1) condemnation cases (2) initiated by political subdivisions (3) to take the fee title (4) in order to develop the groundwater rights.¹⁷⁵ By its terms, the exception applies only in condemnation proceedings and it requires consideration of the value of groundwater rights in addition to the value of the surface estate.¹⁷⁶ Indeed, section 21.0421(c) provides that even if special commissioners or a court finds that the condemned real property may be used by the

170. *Villas of Lake Jackson, Ltd. v. Leon County*, 906 F. Supp. 1509, 1516 (N.D. Fla. 1995).

171. *See Corpus Christi*, 622 S.W.2d at 646-47.

172. *Id.*

173. *Id.* at 647 (quoting 4 NICHOLS, LAW OF EMINENT DOMAIN § 13.23 (3d ed. 1980)).

174. *Exxon Pipeline Co. v. Zwahr*, 88 S.W.3d 623, 627-30 (Tex. 2002).

175. TEX. PROP. CODE ANN. § 21.0421(a) (Vernon Supp. 2009); *see* HOUSE RESEARCH ORG., BILL ANALYSIS, TEX. H.B. 803, 78th Leg., R.S., at 2 (2003) (“[I]n a case where a city is condemning land solely for its groundwater resources, a landowner may not be compensated according to the purpose for which the city plans to use the land.”); SEN. COMM. ON JURISPRUDENCE, BILL ANALYSIS, TEX. H.B. 803, 78th Leg., R.S. (2003) (“[T]he law does not allow the fair market value of that groundwater to be considered in the compensation to be paid to the landowner.”).

176. *See* TEX. PROP. CODE ANN. § 21.0421 (Vernon Supp. 2009).

political subdivision to develop groundwater rights, compensation shall be based on *both* the value of the real property, excluding the value of the groundwater rights, *and* the value of the groundwater rights apart from the land—hardly conclusive support for strictly valuing groundwater rights apart from land.¹⁷⁷

In *Bragg*, the only court thus far to consider whether the relevant parcel for a takings could be limited to the groundwater estate in the regulated Edwards Aquifer rejected such an approach, noting:

Even assuming Plaintiffs are correct that the groundwater estate is a divisible, already vested property interest, Plaintiffs' request that such property further be divided into specific geographic sources is insupportable. The Texas laws relied upon by Plaintiffs do not differentiate between water sources, meaning that if a regulatory taking has occurred, Plaintiffs must show how the denial of the D'Hanis Orchard application extinguishes all "economically beneficial or productive use" of the property's groundwater estate.¹⁷⁸

Accordingly, in a case involving the regulation of groundwater rights, plaintiffs would need to establish a factual and legal basis for consideration of the impact of regulation exclusively on some or all of the groundwater estate.

V. CONCLUSION

The regulation of groundwater withdrawals in Texas has significantly changed the legal landscape for landowners in Texas and, not surprisingly, has resulted in lawsuits against groundwater districts by landowners alleging that their common law Rule of Capture right has been unconstitutionally taken without just compensation. The Texas Supreme Court has not yet addressed whether that common law right was vested for purposes of a constitutional takings analysis. However, the very nature of the common law Rule of Capture right makes defining and quantifying the right a complicated task. It would seem that if the common law provided landowners with a vested property right, the right is limited to, at most, the right to drill a well and seek to obtain groundwater, and arguably, only vests when reduced to possession. Once the right is defined, traditional valuation approaches may be employed; however, in cases in which a landowner's groundwater right is merely one

177. *Id.* § 21.0421(c).

178. *Bragg v. Edwards Aquifer Auth.*, No. SA-06-CV-1129-XR, 2008 WL 596862, at * 3 (W.D. Tex. Jan. 9, 2008).

of many interests in real property owned, the value of the deprived groundwater right should be evaluated in light of the “parcel as a whole.”